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## The Thorny Path of Reform

THE careers of the world's great reformers have been strikingly similar.

That of Jesus may be taken as an example. Beginning in an humble way, the innate divine truths He promulgated attracted attention and won the enthusiastic support of the masses; the movement grew to such proportions that it compelled the attention and the opposition of those in power, and, as to Himself, ended in His death. But the movement thus started progressed. His principles gradually permeated the masses of mankind, and now, after the lapse of twenty centuries, their progress seems to be more decided and general than ever before.

The same course followed the efforts of the Gracchi, of Rienzi, Masaniello, Wickliffe, and nearly all other political and social reformers.

In modern days the recognition comes quicker. Darwin and Lecky were fortunate enough to see the tide turn in their favor during their own lifetime, instead of having to wait for posthumous honors. Nevertheless the principle remains true.

The reasons are not far to seek, and may easily be apprehended by a study of human nature for any epoch, place, race or occasion. The American people is peculiarly difficult to stampede. It is made up of many dis-

cordant elements, and it must not be forgotten that it is an aggregation of heterogeneous individuals, not at all a homogeneous mass. Take the present Rooseveltian crusade, his attacks upon greed and graft—how do they affect the average individual, or rather each concrete individual? We admit moral principles in the abstract, but when it comes to applying them in our own individual cases it is different. The man who "believed in" the Maine Law, but was "against its enforcement," has many confrères. When an attack is made upon trusts and graft, every man acknowledges their evils in the abstract, but each quickly begins to ask how this applies to himself personally and to his own conditions.

It is unsafe to attribute to men the rule of altruism as a matter of course. Mr. Roosevelt may feel that he is absolutely right. He may feel it with every fiber of his energetic nature. He may feel that he is demonstrating it to the community in such a way that not even the man of most limited intelligence can fail to see it exactly as he does. But it by no means follows that the man is right in this, or that, seeing it thus, he will act upon it. To many men there is a decided difference as to whether they are being grafted upon or whether, somehow or other, they are getting a little share of that graft.

I know perfectly worthy citizens, men who are upright in their dealings with their fellow men, fully up to or above the average of good citizens, into whose pockets, nevertheless, there comes a trickle of coin from a trust, yet, sad to say, they are peculiarly reticent on the subject.

When the powers of this earth are arrayed on the side of the Wrong, it is extraordinary how many men can be reached by influences wielded by these powers. The community will not, by any means, be found a unit on the side of the Right, and the opposition is apt to loom up more formidably than we like to realize.

Then, again, with those who are not interested, there is a wide difference between hearing or even believing the revelations or the animadversions of the reformer, and acting upon them. Men cast about cautiously to learn how they themselves are going to be affected, whether possible harm may come to them by accepting the new doctrine and joining the new movement. Many wait to see "which way the cat jumps," unwilling to come out into the open prominently, to serve as a target for possible missiles from the enemy's line.

But beyond this there is a vast mass of conservatism to be reckoned with. Men may acknowledge the evil, but they are not yet convinced that the remedy offered will prove successful. We have worked more than a century under the old constitution, and it may be that some revision will adapt that glorious document more accurately to modern needs and conditions. But when you begin to revise, where are you going to stop? Who knows whether this revision may not carry us completely out of our moorings and into worse conditions than the present ones? We have become accustomed to the old constitution. We have adapted ourselves to its workings—have adapted it by our interpretations to present needs. Are you *quite* sure that the proposed changes will not develop new evils in their turn?

The old parties may be eaten up with graft, yet, after all, they have stood for something; and the spirit of change which leads to the proposition of new ones may go much further than we would willingly sanc-

tion. Take the numerous journals which preach what they term "new thought;" they certainly point out many evils in the working of our social system, but they nearly always also preach antivaccination, and antivivisection, and anti-drugs, and antimedical education, and a whole lot more antis which sensible people would not care to advocate.

The truth of the matter is, that reform is an individual matter. Every human being must consider with himself as to the right or the wrong of these new propositions and try to conform his actions thereto. Rectitude is strictly personal. The hope of the world lies in the cultivation of the individual conscience. Progress may be enhanced by a wave of emotional enthusiasm sweeping over the country and carrying it headlong in the right direction; nevertheless, no such movement has ever occurred but that the immediate effects have been largely neutralized or wholly lost in the reaction which followed. The French Revolution was succeeded by the despotism of Napoleon, which inflicted more bloodshed and suffering than had the whole line of monarchs from Clovis down to Louis XVI. But the principles which prompted that fiery outbreak have continued to permeate and influence mankind in a continually widening circle, and the end of the movement is not yet in sight.

The duty of every one of us is plain. First comes the duty of investigation. Next comes that of thought, of considering, of appreciating, comprehending, arranging and combining the material we have gathered, of forming our conclusions and satisfying ourselves as to what is right. Then comes the duty of promulgating our newly formed beliefs, of correcting, expanding and controlling them by discussion and comparison with the work of others.

Rest assured that truth is as indestructible as is matter, and that the seeds we implant in our neighbors' minds will germinate and mature in time. The results of our work may not be apparent at first. The seed planted in the fall lies hidden until the revivifying influence of the spring's sun arouses it to activity; nevertheless the seed is there, with all its wonderful possibilities.

The principal thing is, to be sure we are right, that they are indeed truths which we

are preaching and not possible errors. The heart of mankind is right, and it responds to appeals for the right. Each in his own way is, after all, striving upward; but as each has his own nature, his own environment, it is not to be expected that all should look upon any matter in exactly the same light.

The text of my preachment, therefore, is a warning against impatience and discouragement. The important topic for our study is not so much how *we* see things, as how to induce our neighbor to see them as we do. We must study his mind and his conditions, in order to make effectual our propaganda of the right.

Cleave then to the sunnier side of doubt,  
And cling to Faith beyond the forms of Faith!  
She reels not in the storm of warring words,  
She brightens at the clash of "Yes" and "No."  
She sees the Best that glimmers through the Worst  
She feels the sun is hid but for a night,  
She spies the summer through the winter bud,  
She tastes the fruit before the blossom falls,  
She hears the lark within the songless egg,  
She finds the fountain where they wailed "mirage."  
—Tennyson.

#### THE STRAIN ON THE MODERN STUDENT

In the dailies we read that a senior student of the University of Pennsylvania Medical Department died from drugs taken to sustain him while preparing for examination. The coroner of Philadelphia is quoted as saying: "We have discovered that nearly three-fourths of the students in the College are drug users. This statement applies to practically every department in the College. While not all use the drugs regularly, nearly all take some stimulant during the examination period. The favorite drug for students during examination is strychnine. They cram for nights at a time and then go into the examination room just about chuckful of strychnine. It is a wonder we do not have more sudden deaths."

Allowing generously for exaggeration, there is probably enough truth in these statements to warrant us in giving the matter serious consideration. For a number of years examining boards, committees on education and similar bodies have vied with each other in increasing the demands upon the student. More study, more hours, more years, more preliminary requirements,

more rigidity in exacting these requirements to the letter has been the cry all along the line; and that body of men, that board of examiners, which carried the standard most highly and rendered it most nearly impossible for any candidate to pass was vaunted as the most worthy.

It is impossible to increase the capacity of the human mind by legislative enactment. While certain individuals may distinguish themselves by their brilliant achievements, the mass of humanity progresses far more slowly. A large percentage does not progress at all. A standard which is founded upon the qualifications of the very highest would seem unsuited when applied to all. Let us see what has been the effect of this practice.

In Germany, organization has been carried to the extreme. Every German is a cog on the wheel, and lives, moves and has his being as the Government directs. Every German child is educated whether he will or not. No matter what his varying capacity, he is educated by force. I have heard it asserted, although I cannot now lay my hand upon the statistics in proof of it, that in modern times there has been an increase of insanity and suicide in Germany. In other words, through the system of forced education a constantly increasing proportion of Germans find themselves unable to withstand the strain, and fall out by one of these routes. If true, there is an added significance to the statement in regard to the use of stimulants by medical students in Philadelphia.

Do the people want such highly educated physicians? Do they all want them, or do the masses prefer men not so widely separated from themselves in qualifications? Is it not natural that the more highly the standard of medical education is elevated, the wider the gap between the profession itself and the bulk of the people, the greater will be the development of irregular practitioners who, springing from the masses themselves, dispensing with the long and painful course of training now thought requisite to develop the physician, standing closer to the people, are in more immediate sympathy with them and their needs, comprehend them and are comprehended by

them more easily, and intercept the bulk of the practice?

The medical students of the University of Pennsylvania are supposed to be of as high grade as those of any medical college in the United States. The requirements of this college have always been among the highest. It has been a school in which money and brains have been the two requirements, and no medical college in the United States has stood higher in the modern scale. But if a medical education means anything, it begins with the student himself, and teaches him that work must be limited to the working capacity, but not pushed beyond it.

If only a fourth of Coroner Ford's assertions are true, what a light is thrown on the system of education of this institution, and that means on that of every other institution which has developed the highest standard in medical teaching. In order to keep up with this standard, Coroner Ford says, nearly three-fourths of the students in the college use drugs. It matters little what drug is used, for the principle is the same; the difficulty underlies all, and the student who can keep up with his classes only by using strychnine or coffee stands on a par with that one who is overworking his brains to such an extent that reliance on alcohol or morphine is forced upon him.

In connection with this, take the oft-repeated assertion that the vast proportion of the medical profession are morphine-habitues. Here, also, we may divest the assertion of exaggeration, and ask ourselves, how much truth underlies the charge. A physician who was graduated from college twenty or thirty years ago is called upon to hold his own with the newest products of the medical school, who, stimulated to the utmost by strychnine and perhaps morphine, and adept in the latest developments of medical science, is thrown into the community to compete with the man who for a quarter of a century has been engrossed in the treatment of the sick. Must the whole profession betake itself to morphine or whisky to keep up with these artifact accretions?

If this is so, is it worth while? Would it not be as well to wait a little, until the

masses catch up, before pushing our advances in medical education to such an extreme?

We talk of preventive medicine, that it is the practice of the future, and every orator has something good to say about it. We admit without a question that hygiene stands in the front rank of therapeutics. But why do we not practise it? Is it practising hygiene and preventive medicine, if in the preparation for the practice of medicine three-fourths of our students in the best colleges in the country are compelled to stimulate their brains with drugs in order to keep up to the mark? Is *that* preventive medicine? Is *that* hygiene?

But, if these young men do not learn to apply preventive medicine in their own cases, how can we expect them to be adept in the practical application of the laws of hygiene to others? Is it not the first qualification of a medical practitioner to demonstrate in his own person his practical knowledge of the science and art of the medical profession? The caricaturists have often ridiculed the efforts of the bald-headed man to sell hair tonics, but how about a mental and physical wreck attempting to lead the people along the ways of hygiene?

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The Lord who made sparrows and Katy H. Dids, loves the man who is stalwart and brave, who cheerily goes to his wife and his kids, though his hopes may be fit for the grave; the Lord he's no use for the twenty-cent skate, whose courage is as weak as the foam, who piles up his sorrows, and shoulders the weight, and carefully carries them home.—Walt Mason.

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#### PHYSIOLOGIC REACTION TO DRUGS

They who utilize the active principles are prone to insist that the principal reason for their preference is that from these definite and uniform agencies they get definite and uniform results. In other words, while they may *guess* with fair success what the effects following a dose of, say, nux, opium or cinchona may be, they *know* what will follow a certain dose of strychnine, morphine or quinine.

But this is only relatively true in practice: for while the effects of a mathematically measured dose of such a therapeutic certainty is always the same, the reaction of each patient to it differs with the individual.



Nobody could doubt that while a quarter-grain of morphine might be taken with impunity by a healthy man, it is capable of doing mischief to a neurasthenic woman. But beyond this there is a difference in human beings not to be explained by such obvious considerations.

Here is an example: A physician, desirous of having a tooth extracted, applied a local anesthetic to the gums. The extraction was painless and no ill effects followed. Another man applied the same anesthetic, but the pain increased so fiercely that he injected, hypodermically, a tablet of hyoscine, morphine and cactin, under the influence of which the extraction was accomplished painlessly. In this case there was a difference in the pathologic condition, for in the second patient there was an abscess attached to the tooth-root, while in the first case there was not.

However, in other instances no such a difference can be recognized. Many cases have been reported demonstrating the power of atropine as a hemostatic. Nevertheless, a clinician reported that for a uterine hemorrhage—metrorrhagia—he administered atropine, 1-100 grain, hypodermically three times within a short period, without controlling the bleeding. No evidence of therapeutic action was apparent except a slight and dubious dilation of the pupil. The atropine tablets were believed to be of good quality; and assuming this to be true, we have a curious instance of idiosyncrasy in the form of insusceptibility to this powerful alkaloid.

<sup>1</sup> Incidentally, this case goes far to prove Waugh's theory as to the mode of the action of atropine in such cases. Dr. Waugh, it will be remembered, holds that atropine increases capillary attraction by actively stimulating the vasodilators. The capacity of the veins is about five times more than that of the arteries, the capacity of the capillaries seven hundred times more. Even slightly increase the attraction of the capillaries for blood, and the tension of the arteries will be lowered, and the tendency of the blood to flow out of the patulous vessels will sink until the hemorrhage ceases. If the dose of atropine given is not large enough to dilate the capillaries, no hemostasis fol-

lows, as in this instance. If atropine increased the coagulability of the blood or directly contracted the wounded vessels, failure would not have ensued in the case described.

Why, then, did this patient show such insusceptibility to atropine? We can not explain this, and merely restate the fact in other terms, by suggesting that certain parts of the nervous system are more resistant to influences than others. We are never built like Holmes' "one-hoss shay," but everyone of us has his *locus resistantiae minoris*, as also, conversely, his *locus resistantiae majoris*.

Possibly we may get a faint hint from the conception of chemotherapy, which is based upon the observations in the staining of biologic specimens. Here we observe that different tissues exhibit a selective affinity for certain chemical bodies, while not attracting others.

So, it is quite conceivable, indeed is conjectured, that certain remedial principles are capable of uniting chemically with the protoplasm of given tissues but not with that of others, a modification of physiologic manifestations naturally resulting. More physical than chemical is the action of the volatile anesthetics, which are now believed to dissolve from nerve-cells certain fatty bodies—lipoids—thus causing temporary nerve incapacity. All this, however, goes far to suggest caution in making promises—and the wisdom of pushing a well-indicated dosage to the point of effect.

Withal, such cases are exceptional. The individual differences are usually considerable, and the precision of the active-principle therapy is uniform enough to render this fact one of the most striking advantages of the method. In the course of his many years' active practice, the foregoing is the most marked case of insusceptibility to atropine in an adult that has ever come to the writer's attention. To base a therapeutic precept upon it would be as ill-judged as was one physician's objection to the use of hydrogen peroxide in diphtheria. The inestimable advantages of this agent here were given up merely upon the expression of a fear that it might possibly act injuriously on the healthy mucosa.

Let us not make a similar mistake of judgment with atropine.

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What does it matter where a man is from? Is it fair to judge a man by his post-office address? Why, I have seen Kentuckians who hated whisky, Virginians who were not descended from Pocahontas, Indianians who hadn't written a novel, Mexicans who didn't wear velvet trousers with silver dollars sewed along the seams, funny Englishmen, spendthrift Yankees, cold-blooded Southerners, narrow-minded Westerners, and New Yorkers who were too busy to stop for an hour on the street to watch a one-armed clerk do up cranberries in paper bags. Let a man be a man and don't handicap him with the label of any section.

—O. Henry.

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### THE PARCELS POST

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Do you want it? If you do, then now is the time to make your wants known through your congressman. It certainly seems strange that our country is practically the only "civilized" one that is without it. And stranger still, we have a parcels-post arrangement with other countries, but not for the convenience of our own citizens. Thus, we can send an eleven-pound package at the rate of twelve cents a pound to Prussia or farthest Patagonia, and the citizens of either of those distant countries can send packages to us at the same rate; but such is the irony of business politics, it costs us here in Chicago *sixteen* cents a pound to mail a bundle to Aurora or Milwaukee or the nearest hamlet, and then the limit of weight is four pounds instead of eleven, as in the case of foreign lands. That doesn't seem just fair. What do *you* think?

The main opposition to the parcels post in this country comes from two quite different sources and rests entirely upon class interests. To be specific:

First, and most powerful, in this antagonism are the large express companies. These are making millions on the money actually invested—some of them several hundred percent, so it is said. Naturally they do not wish to be interfered with, and they have influential friends in Congress who make it their business to see that they are not.

Second, there are the thousands of tradesmen in the smaller cities, towns and villages of the nation who have felt the severe competition of the great mail-order catalog

houses. The establishment of the parcels post, especially on the rural free-delivery routes, would give a larger competitive opportunity to the latter concerns, who would then be enabled to deliver their goods at the farmer's door, and at prices which the local dealer could not meet.

The result of this, so it is argued, would be the destruction of the business life, and with it the crippling of the social life, of many thousands of small communities. It is assumed that many a prosperous town would be ruined if the parcels post should become effective, and, furthermore, it is asserted that these cheap postal rates would foster the development of an enormous mail-order trust, draining the rural communities of their capital and population and aggravating the evils of centralized wealth and municipal congestion.

In answer, it might be said that every improvement in means of communication and transportation has been opposed, because, presumably, it had exactly the same tendency as the parcels post. We need but to review the arguments against the replacement of the stage-coach by the railroad, seventy-five years ago. These objections seem funny now, but they were mighty serious then.

The building of trolley lines has been fought by many country merchants on exactly the same grounds. Every reduction in railroad fare that makes it easy for the country purchaser to get to town, or of freight rates, that reduces the expense of shipping goods from the city to the country, might be opposed on these same grounds. The telephone, the telegraph, every agency that annihilates distance or makes for ease of communication has the self-same effect; yet, disaster—in spite of all the evil prophecy—has never followed such progressive movements. There has simply come about a readjustment to meet the changed conditions; and society, as a whole, has been bettered by them.

It is inevitable that the purchaser should seek to buy in the cheapest market, and the seller to dispose of his wares in the dearest. In this competition, it is also to be expected that the middleman (retailer and jobber) should eventually suffer, for anything that brings producer and consumer closer to-

gether hurts him, though it fits in exactly with the tendencies of economic law. Thus, for instance, the jobber's business was built up *because of* the remoteness of the retailer from original sources of supply. When that remoteness ceases to be a factor, then the necessity for the jobber becomes correspondingly less.

There are millions and millions of people who *must* buy the necessities of life at the lowest possible prices. However friendly their relationship with the merchants of their communities, they *must* defend their own interests if they desire to prosper themselves. This class of our people, which in fact comprises the bulk of the population, cannot be expected to *oppose* any movement which would directly have the effect of cutting down the cost of living while at the same time, through the reduced cost of delivery of their own product to *their* consumers, such change would materially add to their net incomes. They would be foolish were they not to endorse it and fight for it.

The threatened "trust" can only survive so long as it gives greater service at a lower price, and in all probability it is but the precursor of some more effective form or forms of civic cooperation.

Therefore, as promising the greatest good to the greatest number, the parcels post is to be commended. On the whole, the tendency of this institution is, presumably, to increase the prosperity of the laborers—whether on the remote farm or in the city shop; and, after all, these are the *producers*, the bone and sinew of a people, while the distributors, or middlemen, in excess of actual necessity, are economic parasites. It is natural and right that the manufacturer and consumer should be brought just as close together as possible, and the parcels post is a means to that end. The physician's interest is that of the people as a whole. His prosperity depends upon their prosperity. Certainly, he should lend all his influence to making the parcels post a reality and of widest utility.

The half-way measure proposed by the Postmaster General, which would make the parcels post effective only on rural-delivery routes, is defective, but, for all that, may be like the proverbial "half loaf." Why not

discuss this topic in CLINICAL MEDICINE? Who has something to say?

#### Against the threats

Of malice or of sorcery, or that power  
Which erring men call chance, this I hold firm:  
Virtue may be assailed, but never hurt,  
Surprised by unjust force, but not enthralled:  
Yea, even that which Mischief meant most harm  
Shall in the happy trial prove most glory;  
But evil on itself shall back recoil,  
And mix no more with goodness.—Milton's *Comus*.

#### THE FUTURE OF PHARMACOGNOSY

*The Eclectic Medical Gleaner* reprints a portion of Tschirch's address delivered at the opening of the School of Pharmacy of the Pharmaceutical Society of Great Britain. In this presentation Prof. Tschirch predicts the speedy return to the use of drugs, and especially to those drugs elaborated by the chemistry of nature. He says: "When medicine has thoroughly ruined the digestion with synthetic remedies, and tested all the organs of the animal body, it will return once more to drugs, and employ them to a greater extent than it does at present. It will return to the most ancient remedies of mankind, to the medicinal plants and drugs."

In another place he speaks of the use of the whole drug in a manner so contradictory as to show that the matter was not clear in his own mind. He says that "when the isolated active principles are tested pharmacologically, it becomes evident that their action does not correspond with that of the drug itself, for the latter scarcely ever contains a single active constituent."

This is very true. However, the only instance which he names is rhubarb, which, as he says, in addition to laxative anthra-glucosides, contains astringent principles, and owes its therapeutic use to the simultaneous occurrence of these two antagonistic groups of substances. But he does not add, and neither does *The Eclectic Gleaner* in its editorial comment, that, this is almost the only illustration of this fact that can be adduced in the entire vegetable materia medica. In the face of this, he goes on to acknowledge the correctness of the position of the active-principle advocates by recommending experiments in cultivation to ascertain the means of increasing the amount of

the active constituent of the medicinal plant which is desirable. He speaks of the cultivation of cinchona to produce a bark rich in quinine, and of opium to secure an exudate poor in narcotine, and advises similar experiments in the cultivation of digitalis and belladonna.

One can prove almost anything by quoting fragmentary and detached portions of one's remarks. It is impossible to get away from the truth, and that is, that the single active principles have been more completely studied and tested, their action is more exactly known and may be predicated with more certainty than that of any other remedies in existence, excepting the correspondingly chemically pure salts issued from the laboratory.

It will be long, however, before this idea of the whole-drug effect is completely dissipated. As long as it is advocated by such a brilliant genius as John Uri Lloyd, it will prevail mistily in the minds of a certain proportion of the profession. The cold fact that there is no such thing as "the whole-drug effect," but that what is called such is the effect of the combination of all its active principles, cannot be denied; and since these exist in each separate plant in different proportions, it follows, necessarily, that the effect of each plant differs from that of all other plants of that variety, and it is only a matter of guesswork and experiment to ascertain exactly the effect to be obtained from each and every new specimen of the drug.

Again we say, if there are remedial values in the minor alkaloids or glucosides of any plant, let us have these principles isolated, tested, and given to us in chemical purity, that we may use them when we need them, in such doses and proportion as we desire, and not be compelled to rely upon their chance presence in the plant; for be it remembered always that the active principles are developed in plants for their own individual uses, and not for the benefit of other creatures, not even man.

Many other interesting points were mentioned in this address. The author refers to the investigations, by Kobert and others, of the saponins, the cyanogenetic glucosides, and the oxymethylanthraquinones; also to

the animal substances found in plants, such as cholesterin, cholin, succinic acid and urea. One of the greatest surprises of Tschirch was his discovery that glycyrrhizin was an ester of glycuronic acid, an acid which plays so remarkable a role in the animal economy. This was totally unexpected, for the most varied sugars are at the disposal of a plant if it wishes to form glucosides. Then he treats of the tenicides as containing a phloroglucin group. He also advises more attention to be paid to the insects which destroy vegetable drugs.

Altogether, there is much interesting matter in this address. The reader may find it in *The American Druggist* or reprinted in *The Medical Gleaner*.

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"Tis easy to be a friend to the prosperous, for it pays; 'tis not hard to be a friend to the poor, for ye get puffed up by gratitude and have your picture printed standing in front of a tenement with a scuttle of coal and an orphan in each hand. But it strains the art of friendship to be true friend to a born fool.—O. Henry.

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#### THE CRITIC AND GUIDE

I know of no man who possesses in such a marked degree the faculty of condensing a fact or an argument into a single paragraph—sometimes a single sentence—and driving it home with a force that fixes it indelibly upon one's brain, as Dr. W. J. Robinson of *The Critic and Guide*. And the things about which he talks in his journal are not the trivial things; they are the living issues in medicine, especially in its sociologic aspects, pulsating with the life blood of a man who thinks strongly and speaks freely, as mind and heart dictate.

I was especially struck with the November number, which handles the sex question, from many points of view, in at least a dozen different editorials and articles, and absolutely without gloves. In December in addition to more and equally interesting articles on sexual topics editor Robinson devotes special attention to the quack and his atrocities. And, by the way, Dr. Robinson's story of "A Visit to the Rockefeller Hospital," in this issue, is a prose epic, which will stir your heart.

*The Critic and Guide* is filled with the kind of talk that the doctor needs. He needs

knowledge, all he can get of it; but he also needs the prod, the lash, that he may be *compelled* to understand his own importance in the community, and forced to fight for himself *as well as for society*.

You should read *The Critic and Guide*. It is published at 12 Mt. Morris Park, West, New York City.

The man who always stops to think before speaking may not say very much, but he seldom has occasion to take any of it back.

#### "SCIENTIFIC MEDICINE VERSUS QUACKERY"

I hope that every reader of this journal will read Dr. Robinson's article on "Scientific Medicine versus Quackery," the first installment of which appears in this issue. In my opinion this is the most powerful defense of legitimate medicine and the most forcible arraignment of quackery ever presented. It should be placed in the hands of every possible layman, especially those who are inclined to belittle the work of our profession.

It seems to me that every doctor who reads this article will want to aid in distributing Dr. Robinson's great paper. To help along in this work we are planning to reprint it as a neat pamphlet. This will be furnished to members of the medical profession, in quantities, at cost price—\$2.00 per hundred. Let us know at once how many of these pamphlets you can use. Let us carry the battle with quackery into the enemy's camp. Will you not help?

Next month we hope to show you a fine picture of Dr. Robinson, who will contribute frequently to *CLINICAL MEDICINE* during the coming year.

#### PHARMACODYNAMICS OF ARSENIC

The medicinal employment of arsenic presents one of the most interesting phases of the history of therapeutics. Many times its poisonous properties have been made manifest by new developments. It is toxic in the largest as well as in the smallest doses; it is toxic whether taken for a short period or when habituation is attempted; when administered by the stomach, applied

to wounds, open sores or tumors, or when inhaled; it is toxic in every conceivable condition.

When tested by experimental therapeutics, administered to animals or to healthy human beings, no rational basis for the therapeutic application of arsenic has been found. In the arts and in domestic conditions it has approved itself as toxic in innumerable conditions. Nevertheless it has for centuries been one of the most popular of remedies, and new forms of the element are continually being devised and utilized.

To him who sees a cause behind every phenomenon, there is significance in this matter. We may not know the why, but there is a reason behind popular conditions and customs, as, for instance, in the universal use of the caffeine-bearing plants in all parts of the world as the basis of hot beverages. The love of tobacco is instinctive and almost universal; that of alcohol scarcely less so. These show that the article desired is not necessarily useful, but that it satisfies a desire felt by the majority of men. So we may assume that the use of arsenic as a remedy has some basis in truth even though we may be unable to explain just what it is.

The one fact shown clearly by experiment is that arsenic tends to induce fatty degeneration. It may be presumed that this power should be exerted more especially upon the *débris* of recent disease, as yet unorganized rather than upon the normal cellular elements of the body. This is one possible explanation for the preference shown for the arsenate over all the other salts of strychnine, in the treatment of acute febrile infections.

Then, again, it has been found that arsenic has an affinity for the red blood-corpuscles and imparts to these bodies the power of resisting the attacks of various microorganic assailants. This was first shown in the case of malaria, and it was then asked if the immunity conferred by arsenic did not obtain in the case of other inimical organisms. It was not long until this proved the case with trypanosomiasis, where atoxyl has been reported more effective than any other remedy.

Now we are told of the miracles worked by Ehrlich's "606," an arsenical product of



which a single injection is claimed completely to cure some cases of syphilis, primary, secondary or tertiary.

Hitherto we have had no better explanation of our preference for the arsenate of strychnine than that clinically it seemed to afford better results than the other salts. Now we ask, since arsenic protects or defends the erythrocytes in three infectious maladies, why not in others? And in how many others? The burden of proof will soon be on the side of the man who asserts that arsenic does not protect in any given disease, since this would prove, under the circumstances, an exception to an established rule.

Come we back to an assertion of Burg-graev, that a tuberculous patient was cured because she was saturated with arsenates, after which several of its combinations were at once pushed to full toleration. Here we find another curious phenomenon, in that, of the long list of tonics listed by the active-principle therapists, that containing the arsenates of iron, quinine and strychnine, with a few drops of nuclein, has proved so popular that it is employed more than all the others together, either as used singly or in combination. We might be tempted to explain this by the tendency of physicians to employ a group of allied remedies instead of selecting the one most directly indicated, were it not for the law above exemplified, of the "survival of the fittest." There is more than chance in such unconscious selections.

#### THE GENERAL PRACTITIONER AS A SURGEON

Just how much surgery shall the general practitioner attempt to do? As to the answer to this question there is wide divergence of opinion. Some men think that the average doctor can train himself to do almost any kind of surgical work that arises in emergency practice and a large share of the routine operative work that now is passed over to the general surgeon. On the other hand, many others believe that operative surgery, requiring as it does special skill, training and a certain amount of particular adaptability, should be given over, as largely as possible,

to the men who practise surgery, and surgery exclusively.

I have read with much interest the discussion of this question by Dr. Berry in the September number of *The Oklahoma Medical News-Journal*. He says:

"Now, I do not arrogate to myself any great or extraordinary skill; but I do claim whatever skill I have has been acquired by special training along that line. I do know the general practitioner is not qualified to undertake such work unless he is specially trained for it; and no man is more willing to give the general practitioner credit for the work he is doing in his own way; and I do not agree with Dr. Waggoner, either, when he says he is becoming a mere pill peddler. The competent internal-medicine man today is the equal in skill and standing of any surgeon, and deserves equal honor and praise for the work he is doing, and all of them do not live in the cities either. I could name lots of conscientious physicians in the small towns, and even at the cross-roads, who are today doing scientific work that is not appreciated at its full worth by the communities in which they live, but I hope some day to see the people wake up to a realization of their duty to the country doctor—'God bless his soul;' but when Dr. Waggoner tells us he is competent to operate in 'ninety-five percent of all surgical work'—well, I just can't see it that way. The very character of the major portion of the general practitioner's work, its arduous and irregular nature, precludes such work. On the other hand, there is a large amount of minor work which any competent man should do."

In the same number of *The News-Journal*, Dr. Emory Lanphear takes a similar viewpoint. He says:

"Of even more importance, however, is the teaching of surgical diagnosis. Today thousands of bellies are being opened by inexperienced and incompetent 'county-seat surgeons' for purely imaginary conditions. The number of healthy ovaries removed because the women have Glenard's disease, neuralgia of the ileohypogastric nerve, sexual neurasthenia, or what not, is appalling; the number of theoretically diseased appendices extirpated is something astounding! And,

on the other hand, the high mortality from unrecognized appendical abscess (or appendicitis diagnosed too late), the large number of fatalities from gall-bladder and tubal infections, the infinite amount of suffering from chronic irritations which might be relieved by proper surgical treatment, all these are truly heart-rending to the man who sees."

The point that we should like to make is simply this: that no man should attempt to do work for which he is unqualified. Skill is needed. But if he has the requisite skill to perform an appendectomy or repair a perineum, or if he has the aptitude for work of this kind and through study, hospital training and otherwise can acquire such skill, there is no reason in the world why he should not learn to operate himself instead of sending his cases away to the nearest city, where the expense to the patient is much larger and the benefit not necessarily a whit more.

We must learn to walk before we can run, and we should *know* surgery before we take the lives of patients in our hands. Where the physician is not qualified it is well-nigh criminal for him to attempt to do surgical work; and, yet, it certainly is true that as he learns more and acquires a larger degree of skill, he can do a constantly increasing percentage of the operative work developing in his community.

And why shouldn't he? The conscientious physician every day of his life is seeking the knowledge which will make him more successful in the management of pneumonia, typhoid fever, scarlatina or tuberculosis. Isn't it just as much his right and duty to enlarge his surgical knowledge and perfect his technical operative skill? As he mounts the ladder, step by step (and that was the way Murphy got to the top), he is perhaps preparing himself to enter the class of the adepts or the masters—men like Ochsner and Ferguson; Lanphear and Robertson.

Now, mind you, I am not urging untrained, inexperienced or incompetent men to do work which they can not do well. And, like Dr Lanphear, I am violently opposed to unnecessary operations, whether performed by "county-seat surgeons" or any other kind of surgeons.

*We are simply urging our medical brethren to learn more, so that they can do more work, and better work—and reap the financial rewards.* The more difficult cases, those involving unusual technical skill, will continue to flow toward the *exclusive* surgeons of unusual ability, like our friend Lanphear; and no class of men will send them to him more willingly than the men who have enlarged their surgical knowledge, and in so doing have both acquired strength and learned their own limitations.

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What in me is dark  
Illumine, what is low raise and support;  
That to the height of this great argument  
I may assert eternal Providence  
And justify the ways of God to men.

—Milton.

#### SOME COMMENTS ON ACONITINE AND HIVE SYRUP

In a circular to physicians published by the National Association of Retail Druggists, occurs the following singular paragraph:

"As tincture of aconite is required by the Pharmacopeia to be of a definite alkaloidal strength, aconitine, 0.045 Gm., in 10 Cc. of tincture, it will be found practicable to use this tincture in preference to any other form of the drug. The alkaloid used alone is intensely irritant, it is the most active and most potent substance in the Pharmacopeia, and the disadvantage and danger of handling it in prescription amounts should operate against its employment."

Tincture of aconite, then, is measured by its strength in aconitine, the other elements being disregarded. The inference is, that aconitine is less irritant and less dangerous in the form of tincture than when separated and given by itself. The evaporation of the menstruum in the tincture and the decomposition of the aconitine are ignored, but each of these elements tends to uncertainty in the precise strength when the tincture is employed, no matter what it may have been when it left the manufacturer.

In common with many others, the writer has given many thousands of granules of aconitine alkaloid, and, singularly, has never noted the "intensely irritant" action which is spoken of.

As to the disadvantage and danger in handling aconitine in prescription amounts, we fully agree. There is too much variability in the several aconitines supplied to the market to permit of their use in this manner. Safety and efficacy demand the use of a single brand of aconitine. The same is true as to the tincture, but with aconitine we may secure an accuracy of dose never possible with the tincture, for the reason given above.

In the same pamphlet, recommendation is given to the compound syrup of squill. This U. S. P. preparation, when first introduced, was intended to supply the place of a popular nostrum, known as Coxe's hive syrup. I never could comprehend the popular liking for this preparation or its sanction by regular physicians. Both squill and senega are stimulant expectorants, increasing cough, and well calculated to arouse mucous sensibility in those sluggish cases where there is danger of the secretions collecting in the pulmonary tract until cyanosis, or even fatal obstruction of respiration, results. Tartar emetic nullifies the tonic effect of the other two, while it increases secretion, hence is directly antagonistic to the other ingredients. The net effect will depend upon the stronger element of the combination, minus the weaker. It is an apt example of the ancient form of prescribing, where several members of a group of remedies, in this case denominated "expectorants," are thrown together and administered without any definite idea as to the exact effect to be expected from each. The combination is an excellent illustration of drugstore prescribing, in many cases routine in character, and hence tending to irrationality.

One other point in this circular deserves mention: Mr. Potts says that the U. S. P. and N. F. propaganda is gradually doing away with counter-prescribing by the pharmacist. Just why it is having this effect he fails to say, and the *rationale* is by no means clear to us. That such a remark could be thrown out as a sop to the physician, we can readily understand, but beyond this the conclusion is incomprehensible. However, we hope that this is true, for counter-prescribing is certainly one of the most important bars to the closer

relationship between the two professions, so much to be desired.

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Conduct, culture and character are graces that go through life hand in hand, never separate or alone. Happy is he who has more than a speaking acquaintance with each.

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#### THE EFFECT OF RESTRICTED DIET UPON VITAL RESISTANCE

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While "of making of books there is no end"—and this applies especially to medical publications—yet it is here emphatically true that "there is no new thing under the sun." The tomes that burden the desk of the reviewer are mainly compilations, and compilations of compilations, without end evermore. Surely, this is not because we have circumnavigated the globe of Truth, and left no unexplored regions for the present-day adventurer. We can take no step in medical science without finding ourselves in a region of fog and darkness. We can not inquire as to the primary essentials of our art without finding them unknown. Can any physician who reads these lines choose the dozen drugs he most utilizes and tell offhand how long it takes each to begin its activity as denoted by recognizable effects; how long the action takes to reach its maximum; how long the action endures there; how long it takes to subside; how it is eliminated? And, yet, these facts are to the art of therapeutics what the multiplication table is to mathematics.

In the ages since Æsculapius founded the art of medicine we should have ascertained also such primary facts as the influence of diet on the vital resistance, but practically nothing has been done along that line. Reid Hunt enumerates our acquisitions on the resistance against poisons as follows: Delafoy found starving frogs much more sensitive to strychnine than normal frogs; Lewin found starving animals more resistant to quinine, atropine and nicotine than well-nourished ones; Roger came to the same conclusion when quinine and atropine were injected into a peripheral vein, but the reverse when injected into the portal vein; Jordan proved digitalin more toxic to starving dogs; and Adducco reported cocaine, strychnine and phenol much more poisonous to starving than to well-nourished dogs.

Reid Hunt took up the investigation, and his results are published in Bulletin No. 69 of the Hygienic Laboratory of the Public Health and Marine Hospital Service of the United States. He chose acetonitrile as the toxic agent, and made experiments on mice and coneys (guinea pigs). His conclusions are these:

1. Restricted diet markedly increases the resistance of these animals to acetonitrile.

2. Coneys on limited diet excrete a less amount of the cyanogen as sulphocyanate than those on full diet.

3. Diet increases the resistance of some animals to certain poisons, even forty-fold sometimes.

4. Certain diets, notably those of dextrose, oatmeal, liver and kidney, greatly increase the resistance of mice to acetonitrile, in this resembling thyroid gland.

5. This action of oatmeal may partly be due to its effect of modifying the thyroid secretion.

6. In some cases diet markedly affects the reactions of animals to iodine compounds, probably through the thyroid gland. The state of this gland is more important than the form of iodine used.

7. Some diets, notably of eggs, milk, cheese, fats, greatly lower resistance, antagonizing the action of thyroid secretion.

8. Some glands, principally the prostate, the ovaries and testes, affect resistance, as does also the thyroid, but much less. The thyroid, the parathyroid and suprarenal glands exert no action or one contrary to that of the thyroid gland.

9. Resistance of animals to propionitrile is markedly influenced by the diet.

10. Diet affects distinctly, although not markedly, resistance to morphine.

11. Season influences this resistance, probably by altering the thyroid activity.

12. These experiments show that the foods entering largely into the diet of man have most pronounced effects on the resistance of animals to certain poisons, producing changes in metabolism that are not readily detectable by methods ordinarily used in metabolic studies. The ease and rapidity with which certain changes in function are caused by diet are in striking contrast with

the essentially negative results obtained by the chemical analyses of animals fed upon different diets.

From mice taking acetonitrile to children swallowing stramonium seeds or salmon ptomaines is a far cry. Yet these experiments have significance, and especially those showing the effects of liver in increasing the vital resistance. One series of observations (on page 28 of the Bulletin named) showed that the effects of various foods in increasing weight were exactly contrary to their action in adding to the vital resistance. Thus, we note that boiled egg-yolk, boiled milk, cheese, raw milk, lean ham, boiled egg-white and bread, boiled egg-white and oatmeal, bread, oats, boiled potatoes, boiled liver increased weight in proportions decreasing down the list from 40 percent to 10 percent, while the resistance was raised from a fatal dose of 0.15 Gram with egg-yolk to one of 3.5 Gram with liver.

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I ask little from most men; I try to render them much, and to expect nothing in return, and I get very well out of the bargain.—Fenelon.

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## CERTAINTY OF "DEFINITE" THERAPY

Speaking of acute laryngeal dyspnea in children, Dr. Barwell says, in *The Lancet*, "When the spasms are severe, amyl nitrite may be tried, or nitroglycerin, 1-500 grain every three hours; and sometimes belladonna is of value."

Note the hesitating uncertainty so characteristic of the man who as a rule employs galenicals uncertain in themselves, and with timidity born of the fact that he does not really know just what his drugs are going to do. Let us say here that if he administers glonoin, gr. 1-100 every five minutes till effect, it will surely relax the spasm; and if he adds atropine in like dose every hour, it will surely confirm and prolong this effect, and give relief. These remedies act thus because they can not help doing so. There's no "maybe" or "guess" about it.

This hesitation and uncertainty are so characteristic of the ordinary prescriber of old-fashioned drugs that it deserves further consideration.

Dr. Barwell recognized the presence of dyspnea, which he correctly attributed to

spasm. He also correctly placed the point for therapeutic attack, which is further than many of his colleagues would go. But how ineffective his therapeutics! He administers a minimal dose of a remedy which if pushed to full dosage would be as absolutely sure to relax that spasm as that two and two make four. Yet he only "tries" it! The reason is obvious: he gives a drug, the activity of which in the doses named is exhausted in five minutes, one dose once every three hours! Evidently his knowledge of glonoin, i. e. nitroglycerin, is limited to the fact that he has heard of its being recommended as a remedy for dyspnea.

Then, again, "Sometimes belladonna is of value." Surely, it is! Provided it contains enough atropine in the doses given, the belladonna preparation will hold off that respiratory spasm as long as the effect of the atropine contained endures. But while belladonna *may sometimes* be of value, atropine is *always* of effectual value if given in doses sufficient for the need.

This affords an apt illustration of the radical difference between the active-principle therapeutics and the galenics.

Unfortunately, the disciple of Galen thinks or assumes without thinking that he knows it all. When he hears us speak of glonoin and atropine for respiratory spasm, he at once recalls his recollection of amyl nitrite and belladonna, concludes swiftly that that is all there is in it—an old story—and at once dismisses the matter from his mind.

To him the positive, clear-cut statements of the users of positive, definite medicaments sound like arrant nonsense. He has used belladonna—and atropine is belladonna; so, why should those men make such extravagant claims for atropine, when, as he fancies, he knows all about it—that is, about belladonna?

"Does the alkaloid, atropine, add anything to belladonna? On the contrary, it is less than belladonna, for the latter contains something more. And how can a part be more than the whole? Pshaw!"

Thus thinketh ye conservative.

The trouble with our unadvanced friend is, that the simple matter of giving exactly

enough of a remedy to correct exactly the disorder of function present is outside his sphere of thought and action.

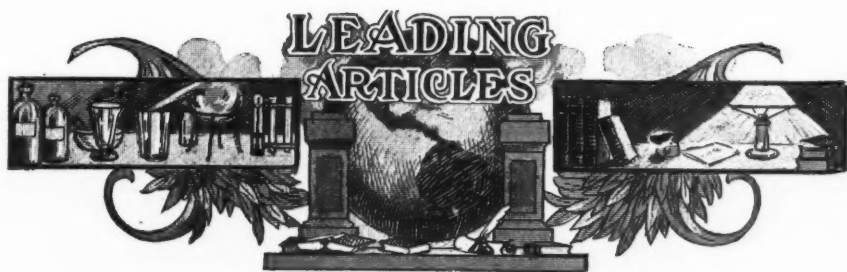
Active-principle medication, definite therapeutics, is not in any sense a mere treatment of symptoms. The same symptom, even the same grouping of symptoms, may result from several totally distinct etiologic and pathologic conditions demanding different treatment. Surface resemblances may exist, to be sure, but with complete organic dissimilarity; or the contrary may be true. There may be any one of a number of pathologic conditions underlying a pain in one location in the abdomen—and there is not a spot between diaphragm and pubis, from one kidney to the other, in which the pains radiating from gallstones may not at some time be located.

The man who judges diseases solely by the symptoms reminds us of the philologist who, noting the similarity in pronunciation between the Hebrew verb "*kophar*" and the English "cover," jumped at once to the conclusion that the two languages were identical. Cover, however, is a modern product. Tracing it back through Old English and French, we find it in the form of *couvrir*, *coprire*, till we reach the Latin *cooperari*, *con* and *operari* (root, *opus*), where the resemblance to the Hebrew root *Kphr* is not at all so striking or convincing.

It is the etiologic and pathologic condition against which a rational therapeutics should be directed, and not the mere aggregation of symptoms. That the indication is sometimes the same is merely incidental, but by no means essential. To those who have become personally familiar with direct, definite, certain medication, the positiveness of its advocates is a matter of course; but only a personal familiarity with these means and methods enables one to comprehend it.

The awakening of many to the true meaning of this matter will come only when it gets in the hands of the public. Then there will come a demand, loud and distinct, that no sensible practitioner can ignore—the demand that the doctor shall know *what he is giving, why he is giving it, what it will do, and when he has given enough.*





## Scientific Medicine Versus Quackery\*

*Should Ignorant Laymen be Permitted to Treat the Sick*

By **WILLIAM J. ROBINSON, M. D.,** New York City

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*EDITORIAL NOTE.*—This address, which was delivered before The Brooklyn Philosophical Association, December 18, 1910, is the most forcible presentation we have ever seen of true, scientific medicine, as compared with quackery in all its forms. Not only should every physician read it carefully; he should also put it into the hands of other physicians, and be prepared to bring its irrefutable logic to the attention of the people of his own community.

**T**HE immortal poet and lover of liberty, Friedrich Von Schiller, said: "Against stupidity the gods themselves struggle in vain." I am reminded of this saying every day, every hour of the day. The fact that now, at the close of the tenth year of the Twentieth Century, I have to stand before you and debate a question which to my mind is so clear and simple that any sane child should be able to answer it correctly is positive proof of the truth of Schiller's statement.

But, nevertheless, even though I am not a god, I shall try to combat some of the errors with which your minds are filled, and to dispel some false ideas which are deliberately fostered and nurtured by the various quacks and ignoramuses whose special province is to prey upon the sick and gullible. Perhaps a mere human, speaking the lan-

guage of common sense, will succeed in accomplishing that which the gods fail to achieve.

As this is the first time that I speak before this Association, a few introductory remarks may not be out of place. Let me inform you, my friends, that I never beat about the bush, never hide behind generalities, never speak to the gallery, never curry favor with my audience, never court applause, never waste time on platitudes; and that I never speak, if I can help it, to an assembly which I know, beforehand, agrees with me in all or in most of the points under discussion. What is the use? Time is too valuable—at least mine is—to waste it in the restatement of propositions with which everybody agrees, in solemnly insisting upon truisms which nobody has ever thought of disputing.

### What Is the Point Under Discussion?

Let us make clear from the very outset what the point under discussion is.

Squarely put, the question is this: Should everybody who wishes to practise medicine and call himself a doctor be permitted to do

\*This splendid address should receive the widest possible publicity among laymen. To facilitate this, the publishers of *CLINICAL MEDICINE* will reprint the article (when it is completed) in neat pamphlet form. These pamphlets will be sold at \$2.00 per 100. Every doctor who wishes to fight quackery should secure a supply and distribute them widely. Send in your orders today. See, also, the editorial on page 151, this issue.

so, or should the State put up certain rigid safeguards and permit only those to practise medicine who have shown themselves competent to do so?

One should think that, outside of a lunatic asylum, this question admits of no discussion. But, unfortunately, this is not so. Many men and women, sane in all other respects, seriously maintain that the practice of medicine should be free to all; that free competition will eliminate the unfit, and that all laws for the regulation of the practice of medicine are in the nature of a trust or monopoly and are demanded by physicians in order to protect themselves against the equal or even superior skill and knowledge of their irregular competitors. And these views are entertained, not only by ordinary men and women, but even by people who call themselves radicals, and who in matters of religion, politics and economics may be trusted to reason sanely and logically.

And here I will say, in parentheses, that it is this latter fact—the fact that so many radicals entertain idiotic ideas regarding the regular medical profession and the practice of medicine—that induced me to agree to speak before your body. And many radicals even see a contradiction in my attitude toward the irregular so-called doctors or quacks. They are surprised that Dr. Robinson, who is known as an uncompromising libertarian in all spheres of human activity, should be so bitter toward nonlicensed, self-styled doctors, and should so strenuously demand their prosecution and elimination. My friends, there is no contradiction in my attitude; I have always differentiated between liberty and license; and human health—human life—has always been too dear to me to permit it with equanimity to be ruined by ignorant and unprincipled quacks.

As to the accusation that the scientific physicians are opposed to the irregular practitioners out of selfish reasons, because they fear the competition and the inroads on their practice, all I can say is, that the accusation is as stupid as it is false. For it is those physicians who have passed their struggling period, who are financially independent, that are most active in making the safeguards about the practice of medicine stronger and

more efficient. Personally, I should not care a rap if tomorrow every bootblack began to practise medicine and every street-cleaner proclaimed himself a surgeon. It would not hurt me, financially, in the least. But it would make my heart bleed for suffering and ailing humanity.

#### **Public Incompetent to Decide as to Qualification of Physicians**

But, questions the dear public—that is, a portion of it: “Are we too stupid, too ignorant to decide whom we want for our medical adviser? Are we incompetent to determine as to who is and who is not a good physician?” Yes, my dear public, you *are* too stupid. you *are* too ignorant in medical matters, and your opinion as to who is and who is not a good physician is utterly worthless. Disease and recovery from disease are entirely too complex processes to be satisfactorily judged by the average untutored intelligence, and the value of a physician cannot be decided by his glib talk, by his prepossessing appearance, by his well-fitting clothes, by his sixty-horsepower automobile, by his rich office furniture, or even by the few cases where he has cured or is supposed to have cured.

Let me give you two or three common, ordinary, everyday examples. A man gets a severe diffuse pain in the abdomen. He calls in Dr. A. The diagnosis is not yet certain; it may be appendicitis, peritonitis, inflammation of the bowels, or something of the kind. Dr. A. therefore orders the patient to stay in bed, remain perfectly quiet, partake only of liquid food, perhaps orders an ice-bag, and says he will call tomorrow, when the symptoms will be more distinct and the picture more definite. He says it is better the patient should suffer some pain than to obscure the picture of the disease by narcotics. He leaves. The patient is not satisfied, however. He is impatient of pain. He calls in Dr. B. Without an attempt at a proper diagnosis, this medic jabs in a hypodermic of morphine or prescribes opium in some form. The patient feels better at once; the pain has left him; he sleeps through the entire night.

Meantime the disease has been making further inroads, but the symptoms are indis-

tinct, because they are masked by the opium or morphine. The patient may die—and the death may even be due wholly or in part to the second doctor's treatment—and, yet, for all this, the relatives and friends may consider Dr. B. a better physician than Dr. A., for did not the former make the patient feel better at once, while the latter could not even relieve him of the pain?

Another example: Dr. A. treats a pneumonia patient, and he dies; Dr. B. treats a pneumonia patient, and he recovers. To the public this at once proves that Dr. B. is a better physician than Dr. A. Nevertheless, Dr. A. may be a very skilful, scientific physician, while Dr. B. is an ignorant quack. But Dr. A.'s patient was a man given to alcoholic excesses, with a weak, leaky heart and hard calcified arteries; he did not stand one chance in ten thousand to recover; while, on the other hand, Dr. B.'s patient was a strong, clean fellow, with a powerful heart and elastic arteries; the chances being that he would have recovered even without any treatment. We physicians know that, but the public does not. To the layman, pneumonia is pneumonia, as to some people pigs is pigs; he does not know that one case of pneumonia may be to another case as 100 is to 1. He does not know that the name of the disease counts for little—that the patient is everything.

To take one more example from pneumonia. Some of you possibly know that pneumonia, when fully established, is what we call a self-limited disease; that is, it runs its course, and cannot be cut short or interrupted by any drugs or methods of treatment. We can only make the patient comfortable and do everything in our power to avoid complications. On the seventh or ninth day there is a crisis, when the disease breaks, and the patient feels at once like a new man. Every physician will tell you that he has had this experience: he has been called in to a case of pneumonia on the first or second day; he is doing the best that could be done for the patient; but the patient is not getting better, as he could not be expected to.

But the relatives get alarmed; and on the fifth or sixth day they call in another doctor; on the seventh day the crisis occurs—and

this second doctor is considered a very god. If he is an honorable man, he refuses to take credit that is not due him, tells the people that the first physician was treating the disease correctly, and that the sudden improvement is due to the crisis. If, however, he is not, he silently accepts all the adulation bestowed, and the people are sure that Dr. Number One is a bungler and Dr. Number Two a medical wizard—when, indeed, just the reverse may be the case. And so I could go on citing examples without end.

#### **Public Not Competent to Judge of the Value or Worthlessness of Medicines**

Let me give you just one more illustration, one of a different character. A young man became, unfortunately, addicted to the use of morphine. He earnestly wanted to break himself of the pernicious habit. He applied to several physicians in succession. These men prescribed for him, but as the morphine-habit cannot be treated very successfully outside of special homes or institutions, the results were not very satisfactory.

By and by this young man came across an advertisement of an "infallible cure" for the morphine-habit. He wrote for it. He took of it. He was relieved at once from the craving for morphine by the very first dose. He continued to take the medicine four times a day, and found that he could get along without any morphine at all. He was happy. He met me: "Oh, you doctors know nothing. And the patent medicines against which you rail so much are sometimes better than your doctors' prescriptions. Since using this habitina I have not taken a single dose of morphine."

The cure seemed to be too marvelous to be true, and I asked the man to bring me the medicine. I analyzed it. I suppose you guess the result. It was full of morphine and heroin, and the doses he was taking contained twice the amount of morphine that he had been accustomed to before. So, instead of being freed from the morphine-habit, as he thought he was, this man was being grasped in its clutches more and more strongly, more and more irretrievably, more and more hopelessly.

It seems almost impossible to believe that people could be so depraved as to offer a

disguised *morphine* mixture as a cure for the *morphine*-habit. I confess that I could not believe it at first. I could not believe that human depravity could reach such low depths. But I was forced to believe, because I read the circulars and labels with my own eyes and analyzed the mixtures with my own hands. And many of the patent medicines on which the public was spending millions, I found, were nothing but the most miserable concoctions of cheap whisky, stimulants and narcotics—and the public blissfully swallowed them, and some trustfully swore by them.

#### Public Not Even Competent to Judge of Its Food

But not only as to physicians and drugs is the public an incompetent, untrustworthy judge, it cannot be relied upon even to judge of its foods. You know what rascalities were perpetrated upon the public prior to the passage of the Pure Food and Drug Law. Literally rotten meat, decayed eggs, rank lard and butter were, by the aid of deodorants and disinfectants, made to pass for fresh, wholesome articles; colored filth for catsup; garlic, dirt and refuse for bologna sausage—but what's the use enumerating further? I do not wish to make you feel sick at your stomachs. And, still, the people swallowed it all, without so much as a murmur. Every once in a while we would hear of a case of ptomaine poisoning—but that was passed as a mere matter of course.

#### Some People Utterly Without Conscience

I am a confirmed optimist, and I would not exchange my optimism for the dearest of my material possessions. I believe in the essential goodness of human nature; and I believe that under improved social conditions everything that is good in us will blossom forth as a beautiful flower, while everything that is bad will shrivel and dry up for lack of nourishment and fall away.

And even now, under our present miserable conditions, the average man, while not particularly intelligent, is on the whole honest and decent. But—but—but—there are certain people (let us hope that they constitute but a minute fraction of the whole of

mankind) who are absolutely devoid of any trace of conscience, who are cruel and brutal, to whom human health and human life mean absolutely nothing, and who for the sake of profit would poison the food supply and jeopard the health and lives of a whole community, nay, of all mankind.

It is against such conscienceless brutes that we need a strong paternal government, that we need rigid rules and regulations. And let us remember that the substitutor of drugs, the adulterator of foods, the diluter of milk, the seller of decayed meat, the purveyor of ignorant advice in medicine, i. e., the medical quack, all belong in the same category. They all cheat, deceive, and prey upon, the public.

Things are not perfect now; still, the public has some measure of protection. Abolish the laws regulating the practice of medicine, abolish the Pure Food and Drug Law, abolish meat inspection, abolish the law requiring drugs to conform to the pharmacopeial standard, and what would be the result? In less than three months the country would literally be overrun by ignorant, blatant, murderous quacks who had never been inside of a medical college; our butcher shops would be filled with diseased, tuberculous meat; our drugstores would contain worthless, inefficient drugs and injurious substitutes.

No, at the present stage of our civilization we need—I repeat—paternal government; we need strong, rigid laws regarding the practice of medicine and the manufacture of drugs (as well as foods); and the laws ought to be rigidly enforced, if we wish to do our duty to the confiding, unsophisticated, and by itself utterly helpless public.

#### Practice of Medicine Not the Same as Selling Shoes

Only recently I heard this most brilliant argument: "If we are to be told whom we should employ as physicians, why should we not be told where we must buy our shoes and our clothes?"

This line of reasoning is really too silly to deserve an answer. But as one apparently sane person was found who asked it, there may be others, and I will answer it. The difference is this:

If you buy a pair of shoes, and they go to pieces in two weeks, you stop dealing with the shoe-store where you purchased them, and your only loss is three or four dollars. The same when a dealer sells you a garment which he guarantees to be pure wool but which proves to be pure shoddy. (And even in this respect the government is about to step in and see to it that commercial lying shall cease. As you can no longer label canned pork, chicken; colored glucose, honey; Newfoundland herrings, French sardines; powdered gypsum, cream of tartar; so there is hope that it will soon be criminal to label a mixture of cotton and shoddy as wool, and colored paper as leather.)

On the other hand, when you have an only child sick with diphtheria and you call in a man whom you think is a competent physician, but who in reality is an ignorant quack, and on account of his maltreatment the child dies, then it is a very poor consolation to you to say that you will not call him the next time. And when you have a wife who is the very life of your life, the very soul of your soul, and during childbirth you call in an utterly ignorant woman who calls herself a midwife, and your wife dies from postpartum hemorrhage or septic infection, then it is no consolation to be told that next time you will know better.

#### **Why Should the Practice of Medicine Be an Exception?**

But why this clamor for so-called freedom in the practice of medicine? Why should medicine be the sole exception? When you go across the Atlantic, you want to be pretty sure that the captain and the pilot of the vessel have had a thorough training, have passed several rigid examinations, and are thoroughly competent to do their work. Why not demand freedom in sailing craft? Let every person who claims he can guide a vessel across the great ocean be permitted to do so. If he steers the vessel out of the proper course, or if he wrecks it by striking rocks or shoals, why, we shall not employ him next time!

You see the absurdity of the thing. The proposition to admit every ignoramus to meddle with the human body is not a whit

more absurd. The human body is a more complex organism than the biggest twin-screw ocean grayhound; and it more often requires more brains and more ingenuity to steer a diseased body back to health than it does to steer a steamer from one continent to the other. Why, even in plumbing we now demand experienced men who by examination have shown their competency to do their work, for we do not want leaky pipes, and object to sewer-gas polluting our rooms.

And what a hue and cry there would be raised throughout the country if it were discovered that ignorant, incompetent and unlicensed men were permitted to make up prescriptions in drugstores and to handle poisons and dangerous substances. The public would justly be horrified. Should the people not feel still more horrified at the thought of ignorant men attempting to cure diseases of which they know nothing?

#### **Protection Not for the Medical Profession But for the Public**

No, it is not for the protection of the medical profession against competition that we demand medical-practice laws: we want them solely for the protection of the lives and the health of the people from ignorant, dishonest and incompetent pretenders!

"But," it will be said (for this has been drilled into the ears of the public by the quacks), "you are trying to establish a monopoly; you are trying to make everybody treat disease according to your ideas, according to the rules of the 'regular' school of medicine. How can we be sure that your school is the best one?"

How false the statement is that we wish to force upon the people *one method of treatment* will be seen at once when I tell you that in New York, for instance, and in several other states, at the examinations of the state board of medical examiners no questions whatever are asked regarding treatment of disease. We assume that every physician, after he is licensed to practise medicine, will, either out of altruistic or out of selfish motives, do his best to cure his patients. And as no unanimity, no finality has been reached in regard to the treatment of many diseases, we prefer to



leave that part of it to the judgment and the conscience of the individual physician. *But we want at least to be sure that the man is capable of diagnosing diseases*, and that, if he wants to apply the right treatment, he is able to do so.

Let me illustrate by an example or two. We will assume that even a quack who has dabbled a little in medicine knows how to treat eczema and syphilis. But how can such a one treat either disease if he is not able to distinguish one from the other? And just to think of the damage the patient would suffer if that quack treated an eczema for syphilis, or the reverse, as frequently is the case.

It is not difficult to find out what to do in a case of chancroid and what to do in a case of chancre; but it takes years of study, it requires practice with hundreds of cases under competent teachers to be able positively to distinguish the one affection from the other.

Do you see? It is not the treatment that is always the most difficult part. Very often it is far more difficult to diagnose correctly than to treat correctly. *There may be a short road to treatment, but there certainly is no short road to the diagnosis of disease.* It requires years of study, years of practice, the aid of the thermometer, stethoscope, sphygmomanometer, cystoscope, microscope, a knowledge of uranalysis, of blood examination, germ culture, and so forth, before we can arrive at a correct diagnosis. Then, how can a quack expect to name the disease? If this fellow did know all those things, he would not be a quack but a regular scientific physician.

If anyone tells you that we try to interfere with anyone's method of treating disease, tell him plainly and simply, on my authority, that he is a liar. All we want is, that any man who wants to undertake to treat human disease should show that he has spent several years in the study of the human body; that he knows its anatomy, physiology and chemistry; that he knows the causes and symptoms of the human ailments, and that he is capable of differentiating one from the other.

Is that demanding too much? I think not. At any rate, for the sake of humanity, *we can demand no less.*

## THE OBJECTIONS TO SCIENTIFIC MEDICINE

Having proved—to your satisfaction, I hope—the necessity of safeguarding the practice of medicine, of limiting it to people only who have spent some years in acquiring some knowledge of the subject, we will proceed to a discussion of the objections to scientific medicine, and will endeavor to present the difference between regular medicine and irregular medicine, or quackery.

We will take up every subject seriatim.

### Are Drugs of No Value?

One of the commonest arguments against medicine is that drugs do not cure, are of no use, only act as poisons. To this we can only reply: Ignorance! Ignorance!

Only ignoramuses who are not familiar with the action of drugs, who are not familiar with their proper doses, their indications and contraindications, who have not used them scientifically, can make such an assertion. And the so-called drugless healers are not men who have taken a thorough course in scientific medicine and in pharmacology, or who have treated patients with drugs for a number of years, giving them a conscientious trial, and then decided that drugs were useless. No, they are men too ignorant or lazy to have taken a course in scientific medicine, and afraid of handling drugs, because being ignorant of their doses and proper use they would prove too dangerous weapons in their hands. For such men it is safer not to use any drugs at all, and in order to justify themselves before the public, they needs must attack those agents and speak eulogistically of their own drugless methods of healing. Are such men, who have never given drugs a proper trial, entitled to any opinion as to the value or worthlessness of drugs?

But here someone is sure to interpose with an objection. Somebody is sure to bring forward the hackneyed and threadbare quotation from Oliver Wendell Holmes, who is said to have stated that "if the whole materia medica could be sunk to the bottom of the sea, it would be all the better for mankind and all the worse for the fishes." And Dr. Holmes was surely not a quack. He

was one of the most clear-sighted of our physicians.

But the trouble with that quotation is of a two-fold character. First, it is—like all the quotations of the antivivisectionists, anti-vaccinationists, and antiscentists in general are apt to be—garbled. The original quotation of Dr. Holmes is as follows: "*Throw out opium*, which the Creator himself seems to prescribe, for we often see the scarlet poppy, growing in the cornfields, as if it were foreseen wherever there is hunger to be fed there must also be pain to be soothed; *throw out a few specifics*, which our art did not discover and is hardly needed to apply; *throw out wine*, which is food and the vapors which produce the miracle of anesthesia, and I firmly believe that if the whole materia medica AS NOW USED could be sunk at the bottom of the sea, it would be all the better for mankind—and all the worse for the fishes."

This, as you see, makes quite a difference. Dr. Holmes did except opium, the various specifics, by which we understand mercury, quinine and sulphur; he did except wine and the anesthetics; and he said distinctly, "*as now used*." And as it is more than half a century since he made his ill-fated remark we can fully understand it. For half a century ago drugs were used in a crude and unscientific manner. Things have changed greatly since those days. Holmes would have to make a few more exceptions: for instance, he would have to except diphtheria antitoxin, the thyroid gland, the active principle of the suprarenal gland, and "606."

#### **We Are Not Drug Worshipers**

We are no longer the worshipers of drugs that our ancestors were; we no longer look upon drugs as mysterious deities, nor do we believe that every disease has its specific remedy; we use fewer drugs; we use smaller doses; we use simpler combinations; we discourage shotgun prescriptions. But all this means simply a better, a more intelligent use of drugs, and not a denial of the value of the use of all drugs.

He who has seen the lesions of syphilis melt away under the administration of mercury, iodine or "606;" he who has seen the chills and fever of malaria disappear as if

by magic under a properly administered dose of quinine or arsenic; he who has seen a miserably dwarfed, imbecile little cretin grow in stature and gain intelligence from day to day under the use of thyroid; he who has seen the pale cheeks of the chlorotic or anemic girl change into red roses under the administration of iron and arsenic; he who has seen a waterlogged old man or woman unable to make a step without getting out of breath take on a new lease of life under digitalis; he who has seen a nasty diphtheritic membrane roll away as if by the touch of a magic wand after a dose of antitoxin; he who has seen the fearful torturing pain in a case of renal or gallstone colic cease instantly after an injection of morphine; he who has seen the life-saving effect of a few drops of amyl nitrite in a case of angina pectoris; he, I say, who has seen all those things will not agree to practise medicine without any drugs. And he who has not seen these things is not a physician, and has no right to hold any opinion on the subject. If in spite of having no right to express an opinion on the subject, if he persists in railing at drugs and claims to be able to treat all diseases without drugs, he is simply a knave and an enemy of mankind.

#### **Surgical Operations**

We are blackguarded because we perform surgical operations. We are called monsters, butchers, belly-rippers, and what not, and many of the quacks of the "no-drug-no-knife" kind try to convey the impression that all surgical operations are unnecessary, useless and even injurious. I am bound to admit that my profession has been guilty of such a thing as excessive surgery; I admit that even now there are cases of operations being performed on patients who could get along without them. But I wish to state it as emphatically as I can that there are thousands and thousands of instances in which a surgical operation constitutes the only method of treatment or offers the only chance of saving the patient's life. And those quacks who, through maliciousness or ignorance of our wonderful surgical achievements, throw ridicule on surgery and odium upon the surgeons, and thus prevent their dupes from seeking surgical help, drive

many victims to an untimely grave, and thus deserve the execration of all men.

#### Drug Dopers

"Drug-dopers"—this is a favorite expression of the quacks. An attempt is made to cause the people to believe that our only way of treating disease is by the means of drugs; that we neglect all other methods except stuffing the patient with pills and powders and nauseous concoctions. No more impudent stupid lie was ever uttered.

Drug-treatment constitutes only a small—a very small—part of the modern practice of medicine. There is not an agent or method, material or immaterial, that we, members of the regular medical profession, do not employ in the treatment of disease. Regulated diet, graduated exercise, water internally, and externally in the numerous hydrotherapeutic methods, mineral waters, baths, direct sunlight, fresh air, heat in its multitudinous forms, massage, drugs of mineral, vegetable, animal and synthetic origin, surgical operations, electricity, roentgenotherapy, Finsen light, radium, antitoxic sera, bacterins, vaccines, suggestion (psychotherapy), hypnotism, all of these agencies we regular scientific physicians make use of freely in our endeavor to cure and to prevent disease. We may use only one of these agencies in the treatment of many of the diseases, but we do not hesitate to use all of them whenever they seem indicated.

And here comes sectarian Number One and tells us that he can cure all diseases by manipulating the vertebræ. Sectarian Number Two claims that he can cure all diseases by water alone. Quack Number Three claims that he will prevent and cure all your ills by arranging your diet for you, making you eat lots of salads, or cutting off all meat, or some other dietary hocus-pocus. Quack Number Four claims that uncooked food is the panacea. Fraud Number Five vociferously asserts that he can cure all diseases by making you believe that it is all an error in your mind.

All such claims and assertions are absurd and fraudulent, because there is no single agency in the world that is applicable to the entire range of human disease. It makes no difference what the agency may be, if

anybody tells you he can cure *all* diseases by the aid of one particular agency, you can safely put him down as a quack. And there are hundreds and hundreds of books, good scientific books, books that can be relied upon, and dozens of journals written and edited by members of the regular medical profession, which are devoted exclusively to nonmedicinal methods of treatment.

Do you see now how false the accusation is that we are merely drug-dopers?

#### We Are Accused of Having Many "Schools"

One of the favorite arguments—an argument which appears to possess much weight with the uninformed and unsophisticated—is the contention that medicine is not a science at all; that it is nothing more than a jumbled collection of a few empirical facts and observations; that it consists of several "schools," each diametrically opposed to all the rest; that a practitioner of one school treats his patients on lines entirely different from those accepted by the practitioners of the other schools. This being a fact, say these false leaders, there is only one conclusion to be reached: either all schools of medicine are wrong or, at least, only *one* is right and all the rest are wrong. As each school believes that it is the only right one and that the others are in ignorance and error, there is no possible means for the layman to determine which is really the right one. The only just way out of the dilemma, therefore, is to abolish the control of the practice of medicine altogether and permit everybody to practise, leaving it entirely to the people to choose their medical advisers.

With a show of plausibility, these sophists say: "Why are there no different schools of physics, schools of chemistry, schools of botany? Answer: Because these are *sciences*. Medicine, on the other hand, is no science at all, but only a conglomeration of mistakes and superstitions."

Says one of the periodicals devoted to quackery of the worst form: ". . . They are the advocates of the various schools of medicine. They do not agree among themselves on a single question of importance to the patient. They exhaust the vocabulary of vituperative words in describing each other's practice. The homeopath calls the

allopath a murderer, while the allopath calls the homeopath a flimflammer. The eclectic is as sure that the allopath is wrong, as he is sure that he himself is right. The dear people are warned by the allopath against the homeopath. The unsuspecting public is warned by the homeopath against the allopath. The unsophisticated masses are warned by the eclectics against all other schools of medicine," etc., etc., *ad nauseam*.

But let us look a little more closely into the matter. Are there really such wide and fundamental differences among the schools? Let us take, for example, a case of placenta prævia, hemorrhage from the uterus, or one of transverse presentation. Is such a case treated differently by the regular physician, the homeopath, the eclectic? Not at all. All competent practitioners of either of these schools will treat it exactly alike. Take a case of Potts's or Colles' fracture, or one of dislocation of the shoulder. Will it be treated differently by followers of the different schools? No, their treatment will be exactly alike. Will a stone in the bladder, an intussusception of the bowels, an incarcerated hernia, an acute or chronic otitis media, a severe nasal hemorrhage, a foreign body in the larynx, a trachoma, an iritis, a glaucoma, a severe shock, a case of poisoning, and so on, be treated differently by the representatives of the various schools? Most emphatically, no! All such cases are treated practically alike by the educated and competent physicians of all schools.

The real difference among the schools becomes only manifest in the internal treatment of *some* internal diseases. But even here there is a universal agreement as to the general management of the case, as to hygiene, nursing, diet, etc. The difference is only in the drugs used and in the doses, and even in this respect the barriers are beginning to be thrown down, and what at one time seemed to be an impassable gulf is beginning to be bridged over.

Homeopaths now large'y recognize that the reaction against excessive and careless dosage during the last quarter of the Eighteenth and the first quarter of the Nineteenth Century has swung to the other extreme, and the majority of them have at the present no

scruples in using drugs in the same doses as they are used by the regular physicians. The eclectics, to whom at one time mercury was the incarnation of everything wicked and diabolic, are now using the salts of that metal without any compunction. They have perceived that it was the careless and excessive administration of that drug that occasionally worked havoc with the patient's constitution, and that if administered with proper precautions (a thing necessary in the administration of any drug) it is one of our most powerful therapeutic weapons. And I know both homeopaths and eclectics who are clamoring most vociferously for Ehrlich's "606."

The newest remedies, the latest products of the synthetic laboratory are used with almost equal frequency by the followers of all the three schools. Druggists with a large prescription trade, who are patronized by regular physicians, homeopaths and eclectics testify to the fact that, while in minor ailments and in mild diseases the treatment by physicians of diverse schools may vary widely, yet in severe diseases and in emergency cases the prescriptions are practically the same—the drugs and the dosage—no matter from what school of medicine they emanate.

Again, graduates of the homeopathic and eclectic schools attend the regular post-graduate schools and the foreign universities side by side with the regular physicians, and I speak with positive knowledge when I say that there are few among the best-educated homeopathic and eclectic physicians who do not subscribe for one or more regular medical journals. The regular profession, on the other hand, fully and cheerfully recognizes that both the homeopaths and eclectics have done their share in behalf of medical science and have contributed toward greater care and exactness in drug-therapy. In the medical press—and of late more and more often—voices are heard against sectarianism, and the sentiment is slowly but surely crystallizing that there is but one science and art of medicine, and that minor differences in the treatment do not offer sufficient justification for the existence of separate schools.

(To be continued)

# The Importance of Gastric Conditions

*A Study of the Significance of Gastric Symptomatology*

By A. L. BENEDICT, A. M., M. D., Buffalo, New York

**EDITORIAL NOTE.**—*What does this symptom mean? What can we do to cure this case? These are questions that every physician has occasion to ask himself many times, and perhaps under no condition more frequently than when the symptoms point toward the stomach as the seat of trouble. Even the laboratory findings may mislead us. A correct interpretation of the symptomatology may save (and frequently does) from an unnecessary surgical operation. These are some of the things pointed out by Dr. Benedict in this very important article, which will help toward intelligent treatment.*

**T**HIS article would be inexcusable, were it not for the swing of the pendulum of medical thought, from the ridiculous extreme of catheterizing the stomach as a matter of routine without diagnostic or therapeutic excuse and the neglect of sub-jacent organs, to the equally fallacious notion that the stomach is, physiologically, of little value, and that, symptomatically, it is at best a barometer of nervous and reflex influences.

## **Gastric Symptoms, While Overrated, Not Unimportant**

By actual count of serial cases, the writer has found that gastric symptoms, ordinarily so considered, indicate gastric disease in only about twenty percent of cases—exactly twenty percent indeed for the hundred counted. Even this proportion is probably higher than would be found in a practice of unassorted cases, although the statement sometimes made, especially by those with a predilection for surgery, that gastric symptoms are almost always reflex or due to general neurotic states, is probably to be explained by neglect of exact means of diagnosis or the pursuit of some particular hobby.

## **Indirect Effects on the Stomach**

It must not be forgotten that relief by hygienic treatment, the removal of some complicating or purely coincidental condition, or recovery after operation, as on a slightly abnormal appendix, does not necessarily prove the unreality of the gastric condition.

Rest and open-air life, in an appropriate climate, for example, may cause the disappearance of a bronchitis indisputably

established by easily recognized physical signs, and so it is not surprising that a careful diet and general hygiene may cure a functional—if there be such—disturbance of the stomach, a gastric catarrh due to superficial causes, and not to portal obstruction, or even an ulcer.

The relief of any local disease tends to increase the recuperative forces with regard to any other. An exploratory operation under anesthesia, followed by rest and a period of careful diet, may easily result in the recovery from various mild forms of gastric disease, even including ulcer, moderate degrees of dilatation, gastroptosis, and catarrh. The fact that gastric improvement followed after removal of an appendix which was found "infiltrated with round cells," a virginal uterus was dilated or straightened, a cervical tear repaired, and such like, does not in the least prove that there has been no gastric disease. Indeed, excepting the operation itself, the treatment may have been quite appropriate to the gastric condition.

Conversely, it is only just to admit that when the stomach-contents have been analyzed, the stomach mapped out and appropriate gastric treatment instituted, the fact of relief does not by any means exclude the existence of some other lesion, surgical or otherwise, that ought to be attended to. For instance, one patient with a very insignificant state of gastric submotility and sub-secretion was subjectively cured, and could not be induced to have an operation for a tumor, rising from the pelvis into the lower abdomen, almost as thick and as long as the forearm.



It is conceivable, not only that eye-strain may induce nausea and vomiting or even reflexly lead to definite gastric symptoms, but that the relief of the latter, by attention directed toward the stomach, may render the patient irresponsible to the strain of slight refractive errors.

The ordinary conception of eye-strain, in relation to the stomach, reminds one of the hostler who conceived the idea of giving medicine to a horse by blowing it into the animal's mouth through a tube. Some time later our good man was found behind the barn, very pale and with a perfectly empty stomach. In reply to a question, he explained that "the horse blew first."

In the discussion as to eye-strain, the ophthalmologists have "blowed first."

One of the most typic case-histories of gastric reflex from eye-strain that the writer has encountered occurred in the wife of an oculist. On having this fact pointed out to him, the husband stated that her eyes were so near the theoretic norm that he had used her vision in a series of research work along optical lines. Relief followed attention to the gastric condition.

One important fact that oculists generally do not seem to realize is that eye-strain, as a term for gastric symptoms, may be employed in quite a different sense from that of chronic gastric disturbance in a person with uncorrected—or improperly spectacted—refractive errors. Allusion is made to certain cases of car-sickness, vomiting, even with a close approach to transient achylia gastrica, or various phases of sick-headache, "acute indigestion," etc., following long exposure to bright sunlight, especially if the patient has been intently viewing moving objects or stationary objects from a moving vehicle, or has read by a dim or flickering light.

Whether the eyes are refractively normal or not, such cases are much more frequently due to eye-strain than those ordinarily so called. With regard to the latter, the only rational view is that either the eyes or the stomach, or, perhaps better yet, both, may be the essential factor. While either the oculist or the gastroenterologist may be justified in treating the case from his own standpoint provisionally, each should be

broad enough to seek the services of the other, if indicated by more than a transient continuance of symptoms, just as in regard to abdominal conditions already alluded to.

#### Anatomic Lesions of the Stomach

It is unnecessary to argue as to the actuality of such gastric lesions as ulcer, cancer,



DR. A. L. BENEDICT

dilatation and ptosis, or even gastritis of various grades. But, even at this date, the necessity for exact methods of diagnosis and the relative efficacy of medical treatment, either local or based upon detailed diagnosis, are not fully realized.

The off-hand way in which certain gastric lesions are diagnosed and treated by operation—usually gastroenterostomy by those who neglect exact diagnostic measures—is appalling to one who realizes that, however great the previous experience, it requires hard, painstaking work in all but the most conspicuous cases, to find out just what the present condition is. For instance, the writer saw just before a gastroenterostomy,

to relieve pyloric obstruction, a patient whose stomach-contents, within a week, had shown no stagnation and only trivial secretory abnormality, who had shown on physical examination a normal-sized stomach, and no excess of peristalsis. The patient recovered from the operation, but, of course, was not benefited. Such malpractice justifies extreme discourtesy, just as much as if the writer, for example, without surgical skill or equipment, should attempt a celiotomy in his office.

#### Gastric Ulcer

There are a good many different kinds of gastric ulcer, if by that term we mean what we would for any other part of the body—a superficial dissolution of continuity. After adverse criticism from various sources, for several years, the writer still maintains that, barring the rare instances in which direct inspection is feasible, either by section or the use of the gastroscope, a gastric ulcer cannot be diagnosed without the demonstration of blood. Even blood does not necessarily mean a gastric ulcer, but the diagnosis must be further established by differentiation. However, until blood appears, gastric ulcer cannot be diagnosed, although its presence may be inferred, sometimes with much probability, from other indications.

Generally speaking, one hesitates to use the tube in a case supposed to be gastric ulcer, although in cancerous and other dribbling forms hot styptic solutions, hydrogen peroxide, and so forth, used by lavage, may be of great service.

Very few practitioners realize that the contraindication to gastric intubation leaves us in a state of almost absolute ignorance as to the chemic features of gastric ulcer. The ordinary idea seems to be that this lesion is due to self-digestion, and that, even if hydrochloric acid is not the direct cause of the eating away of the gastric wall, hyperchlorhydria is either the cause of the increased digestive power or, at least, an accompaniment or forerunner of ulcer.

#### Ulcer and Hydrochloric-Acid Secretion

A few years ago, Ewald collected statistics showing that in or after gastric ulcer hyperchlorhydria was by no means the rule.

Unfortunately, much of the apparently statistic evidence was vitiated by lack of exact methods of investigation. The writer cannot recall a single case of hyperchlorhydria that has eventuated in frank gastric ulcer. Most of his experience with this condition has been of a nature precluding gastric tests, before or after.

It should be remembered, however, that gastric ulcer is not a common condition, especially if only fulminant cases of peptic ulcer are considered, and many of these patients die. One patient who vomited about a gallon of blood in forty-eight hours subsequently showed hypochlorhydria and within fifteen years since has had no further stomach trouble. A patient seen in consultation shortly before January 1, 1909, for rather copious gastric hemorrhage was shown, in the summer, to have complete achylia gastrica. Recently he has had a single mild attack of hematemesis. In November the patient returned to Buffalo, and the stomach below the ribs could be palpated on account of a general induration of the wall. The abdomen was opened, contrary to my advice at so late a period, and an inoperable cancer found. The patient died a week later.

The point to be emphasized is that we really know almost nothing of the relation of gastric ulcer to secretory states and that there is absolutely no reason for considering hyperchlorhydria as a precursor or the result, except by some specious *a priori* logic and upon the basis of a very few accurate analyses, but which are balanced by contrary findings.

#### Gastric Cancer

In regard to gastric cancer, it should be frankly admitted that up to date there is no means of making a positive or even probable diagnosis in time for radical operation. Naturally, in a patient of rather advanced years, who has lost flesh, complains about his stomach, and has deficient hydrochloric acid and an excess of lactic and other acid products of fermentation, we think of cancer; still, if the case is really of this nature, the diagnosis will usually have been made too late, while, on the other hand, the majority of cases with this symptomatology prove to be nonmalignant.

While ptosis and dilation have many etiologic and symptomatic points in common, and may be associated, it is important to make a sharp distinction by locating, not only the greater curvature, but the whole stomach, either by auscultatory percussion or radiography. The latter method was first practised by the writer in July, 1897, after some months of preliminary experiment with iron tablets and bismuth, which failed on account of imperfection of apparatus or lack of experience in locating the shadow. But the former method is less troublesome, free from danger, and, as checked by x-ray picture in many cases, nearly always reliable.

#### **Gastritis, or Gastric Catarrh**

The diagnosis of gastric catarrh, or gastritis, is by no means easy. We may beg the question by holding all "functional" secretory conditions to be due to a true gastritis, or by acknowledging, as is probably correct, that practically all stomachs, under the more or less inevitable irritation of ingesta, are always subject to inflammation in small areas.

In acute and subacute gastritis, the almost certain effect of the etiologic factor renders diagnosis easy by induction. So, too, in chronic cases of gastric disturbance with well-marked hepatic sclerosis, we are practically justified in jumping at the conclusion that an inflammatory, or more properly catarrhal, condition of the stomach is present. But without these conspicuous etiologic indications, all possible information is required—chemic, macroscopic and microscopic—to enable a genuine diagnosis.

Many textbooks make what seems to the writer an error in emphasizing the question as to whether gastric catarrh or dilation, ulcer, stagnation, and so forth, is present. Gastric catarrh is preeminently an accompanying condition of various other disturbances.

#### **"Routine" Tests of Stomach-Contents Not Advised**

The writer would by no means go so far as to advocate routine examination of the stomach-contents in general practice, even when digestive symptoms are present. Nor are we entirely unable to judge with sufficient accuracy, for practical purposes, what the

condition of the stomach is chemically and mechanically. Yet, with increasing experience, a personal conviction of the dangers of guesswork and a more and more humble opinion of one's ability to draw conclusions from symptoms and external examinations alone, tends to develop.

Some symptoms that have been emphasized as reliable fail utterly in the writer's experience. For instance, pain and the tender point supposed to characterize ulcer are often present in cases that, after prolonged observation and various tests, seem to warrant the exclusion of this diagnosis. The formation of gas would appear to be incompatible with a persistent hyperchlorhydria, and so far as fermentative gas is concerned, this rule is correct.

However, hyperchlorhydric patients very commonly complain of gas. As a matter of fact they seldom do have any more gas than is to be accounted for by the almost inevitable swallowing of air. But the irritation of the superacid gastric contents often produces a sensation of distention, the patient tries to belch, and often succeeds in getting up a little gas. In either case he is likely to complain of this symptom. Indeed, he—or more frequently she—may develop aerophagia, which is essentially a sort of exaggerated hiccough, air being drawn into and expelled from the esophagus without reaching the stomach at all.

An entirely different kind of gas formation is wholly physiologic, being due to the meeting of the acid gastric contents with alkaline carbonates in the duodenum. If, for any reason, the pylorus is patulous, the carbon dioxide generated may enter the stomach in considerable quantities. In such cases, also, the bile which enters the stomach acts as a rough indicator of acidity. If the stomach-contents are yellow we may be practically certain that little or no free hydrochloric acid is present. On the other hand, green chyme, though occasionally due to a hyphomycetes, usually indicates normal or else excessive hydrochloric acidity.

#### **Other Factors Involved**

It must not be forgotten that much may be learned from the stomach-contents aside from the formal chemic examination. The

degree of rapidity with which the stomach empties itself may be much better judged from actual withdrawal of residue than from statements made by the patient or by physical examination. For this reason, if for no other, it is important to use a good-sized tube and to siphon out all the chyme. The relative fluidity of chyme is also important. Patients who declare that they masticate thoroughly may be contradicted by their own chyme, as in one case in which a piece of meat as large as the palm of the hand was vomited alongside the tube. Carelessness in habits of eating, as shown by bread labels, fragments of bone, splinters of wood, and so forth, may not be demonstrable except by abstraction of the stomach-contents.

The diagnosis of gastric disease by microscopic appearances of cells and shreds of mucosa is by no means so clear and easy as might be thought and as has been declared, but it is not to be neglected.

The differentiation of gastric and pancreatic proteolysis by the nuclear and connective-tissue tests has recently been shown not to be absolute.

Furthermore, the whole line of tests based on the hypothesis that some substances are dissolved in the intestine and not in the stomach, and, therefore will, by the appearance of a reaction in the urine, indicate gastric motility, is utterly unreliable. At present fecal examinations are in fashion, but, while of great value, they cannot, because of complicating factors such as bacterial decomposition and the impossibility of sharp limitation of time, be expected to yield the exact information of gastric tests.

Moreover, the state of the chyme has a very practical influence on intestinal digestion. Gaultier has emphasized the retardation of fat digestion by gastric superacidity. Granting that the food is well masticated, and not markedly abnormal in kind and amount, that there is not a diarrhea nor an extremely marked failure of bile and pancreatic juice, bacteria usually destroy starch, sugar, soluble albumin and peptones not perfectly digested and absorbed. Thus, exact methods applied to feces are pretty well limited to the study of fats. Hence, from a double stand-

point, it is imperative to check fecal by gastric analysis.

#### As to Intestinal Indigestion

The facile use of the term "intestinal indigestion" is misleading. Generally speaking, we cannot detect the exact nature of the indigestion nearly as well as in the case of gastric indigestion, and, indeed, the term is often used without much justification.

For instance, a recent case thus diagnosed showed no abnormality according to the ordinary test, though it must be admitted that there was no inauguration of accurately measured test diet and quantitation of fats. Examination of the stomach-contents showed isochochymia, an accumulation in an hour of nearly as much gastric juice as the volume of the original test meal, and a hyperchlorhydria. While Schmidt's method showed no abnormality in fat digestion, unquestionably Gaultier's quantitative estimate of fats of different kinds, after instituting a measured diet rich in fats, would have shown such abnormality. But even then the gastric analysis would have been necessary to determine the exact cause and to exclude an intrinsic failure of one of the various functions of the intestine and its tributaries.

Consider the saving of time, trouble and even expense accomplished by the gastric analysis.

#### Common Sense Must Be Added to Clinical Testing

In conclusion, it may be remarked that, if one starts with the former exaggerated notion of the information to be derived from stomach-contents, especially if one fails to correlate the symptomatology and physical examination or even the little practical hints to be derived from careful inspection and microscopic examination of stomach-contents with the formal chemic analysis, disappointment is inevitable.

In the great majority of instances, any single diagnostic examination results negatively. The examination of the stained smear of blood, the tests for albumin, sugar, indican, acidity, bile-pigment, quantitation of any single ingredient of the urine, etc., in the great majority of cases leave one without any particular information to credit to the individual test. Yet, every little

while, a particular one of these tests establishes a diagnosis and suggests appropriate treatment.

In the writer's experience, of all the clinical laboratory tests, the one for the detection of urinary indican reacts positively most frequently. Next in frequency something definite is found in the routine gastric tests. Even a negative and apparently unjustified examination is of value by excluding a potential diseased condition.

Some degree of common sense must be applied in the advance estimation of the relative necessity of such a test and in interpreting results.

As a general rule, if we do not look for things, we shall not really find them, and if we neglect gastric analysis or any other line of diagnostic work, we shall have an undiagnosed mass of obscure cases, with only a few definitely forced upon our attention. Hence, the value of this work should be manifest.

## Solanum and Its Alkaloid

*A Study of Solanum Carolinense, with a Record of Experience*

By J. M. FRENCH, M. D., Milford, Massachusetts

ATTENTION was called to this plant by Porcher, in his "Report on the Indigenous Medical Plants of South Carolina," about the middle of the last century. He quotes from a French work on materia medica, showing that Valentin had made use of the berries in the treatment of idiopathic, or nontraumatic, tetanus, previous to 1837. He also refers to an article in a French medical journal, which gives a notice of the different methods of treating tetanus in America, with observations on the good effects of *solanum carolinense*. According to Porcher, this plant also possessed some reputation among the negroes of South Carolina as an aphrodisiac. (Felter and Lloyd.)

But little attention appears to have been paid to this report by the profession generally, and *solanum* does not appear to have been used in this country to any considerable extent until near the close of the century, when attention was again drawn to its medical properties, this time by Dr. J. L. Napier of South Carolina, through the columns of *The Medical World*. This writer states that he had accidentally learned from the negroes that the plant was useful in "fits." Acting on that information, he prepared for himself a 20-percent tincture, which he began using in epilepsy, eclampsia, and all convulsive disorders, and with remarkable success. He further mentions

that the bark, root, and berries are all made use of. (*Medical World*.)

Since that time the properties of this plant have been studied by a large number of observers, both clinically and chemically, and its use has gradually extended, the general verdict being that it is a remedy of great value in all convulsive disorders. Its chief use, however, is in epilepsy.

### Botanical Characters

*Solanum carolinense* (synonyms, horse-nettle, bull-nettle, sand-brier, treadsaf, treadsoft, ground-potato) is a member of the natural order Solanaceæ, or Nightshade family, to which we are indebted for a considerable number of valuable medicinal plants. It is a perennial herb, growing from eight inches to eighteen inches high, being found in waste places and cultivated fields from Connecticut to Iowa and southward to the Gulf of Mexico; also in South America.

### Preparations and Constituents

*Solanum* is not official in the United States Pharmacopeia. There is, however, a fluid extract in use, and the eclectics employ the "specific medicine" *solanum*, which is made from the root of the plant and is probably the best liquid preparation of this drug. There is also a tincture, prepared from the entire plant. A tincture of the berries is sometimes employed.



Chemical analysis shows that the chief active constituent of *solanum carolinense* is an alkaloid known as solanine, with smaller proportions of solanidine, and, according to some observers, solnine; also an organic acid known as solanic acid. The most important constituent is the solanine, and this is also the most abundant, solnine existing to the extent of only about 7.6 percent of the solanine-content. The fruit is found to be the most active part of the plant, containing the largest proportion of the active constituents. After this come the root, leaves, and stem, in the order named.

*Solanine* is by some classed as a glucoside, and by others as a glucosidal alkaloid. It does, in fact, possess glucosidal properties, inasmuch as it can be broken up into glucose bodies, yet the fact that it combines with acids to form salts classes it, undoubtedly, as an alkaloid. It is also the principal alkaloid found in the entire group of *Solanaceæ*. It occurs in white, exceedingly fine, bitter-tasting crystals, is insoluble in water, slightly soluble in ether and in cold alcohol, and considerably so in hot alcohol. The hydrochloride of solanine is an amorphous white powder, readily soluble in water.

As solanine is the representative principle of *solanum carolinense*, and as the alkaloid has been more carefully studied than the galenic preparations of the plant, we shall consider that the action of the plant as a whole is mainly—though not entirely—that of the alkaloid.

#### Physiological Action

*Solanum carolinense* is a plant having a very decided and powerful physiologic action, upon which its therapeutic uses are definitely based. Moreover, although this drug cannot be said to be in common use, yet its physiologic action has been thoroughly investigated by competent observers, and its fundamental properties, upon which all observers are agreed, have been placed fully on record. Among all observers, no one has given a clearer and more complete statement of its properties than Brunton. The others only complete and slightly modify his statements.

*"Solanine, in warm-blooded animals, paralyzes the central nervous system, without af-*

*fecting the peripheral nerves or the voluntary muscles. It slows the heart and respiration, lessens sensibility, and causes death with convulsions. The temperature constantly falls. The pupil is unaffected. It produces weakness, labored breathing, vomiting and drowsiness, but no true sleep. There is no increase of action on the part of the bowels, kidneys or skin."*—(Brunton.)

"It lowers the irritability both of motor and sensory nerves." (Nothnagel.)

"In fatal cases of poisoning by plants containing solanine as their active principle, it has caused gastrointestinal irritation, with an acrid-burning sensation in the throat as the first symptom, followed by great restlessness, muscular and fibrillary tremors, labored respiration, dryness and hyperesthesia of the skin, rapid pulse, collapse and coma, the temperature falling markedly before death. Albuminuria is usual." (Riley.)

"The first evidence of solanine action seems to be the acrid burning in the throat, decided toxic action being indicated by oppression of the respiration. The first-named symptom, then, would indicate the full therapeutic effect, and the remedy should be discontinued or given only as this symptom subsides." (Waugh.)

"The symptom of acrid burning in the throat is not constant, nor is it a reliable index that the patient has received the largest quantity that should be administered before a reduction is made in dosage; and an extensive use of the drug has shown that unless the dosage is carried until the cortical centers are affected—which is evidenced by a condition of drowsiness and stupor—the result will be disappointing." (Thrush.)

#### Therapeutic Uses

1. As an antispasmodic and sedative, in all convulsive disorders, such as epilepsy, chorea, tetanus, hydrophobia.

2. As an antiepileptic, especially in cases of grand-mal, severe and long-continued, and when the mental faculties are badly affected.

3. In cortical, or Jacksonian, epilepsy. This is according to a somewhat limited experience only, and may or may not be borne out by further trial.

*The symptoms of drug-sufficiency are:* an acrid burning in the throat, followed by oppressed respiration.

*The full physiological action of the drug, within the limits of safety,* is indicated by sensations of drowsiness and stupor.

The most important applications of solanum thus far appear to have been in the treatment of epilepsy, and it is in its use in this disease that I have given it most attention.

#### Personal Experiences

The first case in which I made use of this drug was one in which I had previously obtained considerable good from verbenin, but the benefit stopped short of a complete cure, and in one of the relapses, I decided to try the effect of the solanum carolinense. I employed the "specific medicine" of the eclectics, with the result that the patient while taking it suffered from the severest convulsive attacks she had ever experienced. I then stopped its use and returned to verbenin, with good results. She has continued the use of the latter preparation ever since—a period of more than five years—with favorable results.

This experience caused me to use no more solanum for some time. But finally, by a comparison of my own results with those of others, I came to understand that each of these remedies has its own field in this disease, and that in cases where one of them is acting favorably it is not probable that the effect of the other will be equally favorable. It is true that some observers have reported good results from the alternate use of these two drugs; but I am not a convert to this method. What I am looking for is the exact indications for each drug, the conditions in which each is superior to any other known drug or remedy. If we can find these conditions, we shall not need to employ them in combination, or alternately, unless because of a change in the conditions.

In another, later, case in which solanum has done me good service, I was led to use it from the fact that verbenin did the woman no good, but rather seemed to make her worse. I afterward learned that her previous physician, who was a friend of mine and knew of my use of verbenin in this disease,

had given her the same remedy, with the same result of making her worse instead of better.

I then began giving the woman the "specific medicine" solanum, starting with 3 drops at a dose (which I now know was too small even for a beginning), gradually increasing, as seemed to be needed, up to as much as 15 or even 20 drops three and sometimes four times a day (before meals and at bedtime.) Some of the time, especially of late, I have given her, instead, the granules of solanine for the same purpose, and have found that one alkaloidal granule of 1-67 grain is the equivalent of at least 5 drops of the "specific medicine." The effect of either of these forms of the drug has been most happy, as by means of them she has been able very largely to control the trouble, which in her case consists of localized spasms, occurring principally at night, affecting the muscles of the forehead and those about the eyes, and without loss of consciousness—the form known as cortical, or Jacksonian, epilepsy.

Prof. G. H. French of Carbondale, Ill., gives as the differential indications of the two remedies, that verbenin is the preferable remedy in cases where the source of the convulsions is visceral, while solanine is effective when the source is central or cerebral. He illustrates his theory with numerous cases where the convulsions were produced by such causes as phimosis, cervicitis, intestinal parasites, and inordinate eating, in which—the cause having first been removed—the cure was effected by verbenin; while in others, where the cause is cerebral or perhaps cerebrospinal, verbenin only made the case worse, while solanum or solanine, properly used, produced a cure.

These things seem to me to indicate that in the comparatively mild cases, and especially those in which the convulsions are brought on by a definite cause, which can be determined and in a greater or less degree removed, verbenin is the agent best adapted to produce that sedation of the convulsion-center which leads to a cure; while in the more severe ones, where no peripheral cause can be determined, or if determined cannot be removed, a more powerful influence upon the reflex-center is needed, and this is fur-

nished by solanum, or perhaps better by solanine, the alkaloid, given if necessary up to the full physiologic action.

In a word, *solanine has all the beneficial effects of the bromides*, and even more powerfully, without their injurious by-effects.

The homeopathic use of solanum carolinense is thus described by Dr. Boericke, in his "Pocket Manual of Homeopathic Materia Medica:"

"Convulsions and epilepsy, 20- to 40-drop doses; is of great value in grand-mal of idiopathic type, when the disease has begun beyond the age of childhood; in hysterio-epilepsy, also in whooping-cough."

The hypodermic use of solanum is advocated by Dr. Frank Webb of Bridgeport, Conn., in a paper read before the Connecticut Eclectic Medical Association and published in *The Eclectic Medical Gleaner* for September, 1909, as follows:

"Specific medicine solanum is rightly named specific, for the hypodermic use of it is as near an absolute specific as any drug can be in any form of epilepsy, puerperal convulsions and hysterical convulsions. I have cured one case of epilepsy that had resisted all other means. At the time of the seizure I gave the hypodermic once every three hours for four doses, fifteen drops at a dose, followed by the internal use of it, and there has been no return of the symptoms since. I wish to say in regard to this case, it had resisted solanum by mouth for three years; it would control the paroxysms but not prevent them. By the hypodermic method it has not returned in eleven months. The dose, as I stated, was 10 to 15 drops."

This is a suggestion which may prove of value. It seems to me, however, that the alkaloid solanine would be preferable to any alcoholic preparation for hypodermic use.

## Improved Methods in Surgical Anesthesia

By EMORY LANPHEAR, M. D., Ph. D., LL. D., St. Louis  
Professor of Clinical Surgery, American Medical College, St. Louis

*EDITORIAL NOTE.*—Among the interesting features of the great Congress of the Surgeons of North America, held in Chicago in November, was a clinic conducted at the Cook County Hospital by Prof. John Dill Robertson, President of the Bennett Medical College and Head of its Department of Surgery. This clinic was characterized not only by the skill of the operator and the interesting character of the cases treated, but also by the fact that the hyoscine-morphine-cactin method of anesthesia was employed by him. Prof. Emory Lanphear, of St. Louis, was present at this clinic and on invitation of Prof. Robertson, explained to the audience the anesthetic method used and made some interesting remarks concerning improvements in the technic of inducing anesthesia by the supplementary use of local anesthetics. His address follows:

**I**N the selection of an anesthetic the surgeon is guided chiefly by two things: First the safety and second the efficiency of the agent employed. The hyoscine-morphine-cactin anesthesia used in the cases in this clinic has now been under experimentation and investigation for several years. It has been vigorously attacked and as energetically defended. Principally the attacks upon it have been made by men inexperienced in the use of the anesthetic and, therefore, opposed to it upon theoretic rather than practical grounds. The men who have defended it, on the other hand, have been

those who have used it extensively, including, perhaps most prominently, Prof. Robertson and myself. In my own work and under my direction this anesthesia has been employed in considerably more than two thousand operations. This large series of anesthetics has been attended by only one death, and that from anuria. This suppression of urine, however, is liable to occur in any type of anesthesia—ether, chloroform, or hypodermic—and, therefore, in so large a number of cases this single accident can scarcely be ascribed to this peculiar type of anesthesia.

Dr. Robertson, I am informed, has used this form of anesthesia in almost, if not fully, as many cases as I have, and without a single death ascribable to the anesthetic. These two reports, it would seem, ought to be sufficient to assure even the most bitter enemy of hypodermic anesthesia of the safety of hyoscine, morphine and cactin as an anesthetic agent. Certainly the record is in strange contrast to the early experience with an impure scopolamine-morphine anesthesia and is an evidence that an H-M-C

tablet, so much condemned by its enemies, is far superior to the scopolamine-morphine advocated by some other operators.

The method of employment is important, because improper use gives unsatisfactory results. The method now employed in most cases is to give the initial dose, one full-strength tablet, three hours before operation, and a second dose one and one-half hours before the operative work is begun. If the patient is not in profound anesthesia, as is often the case, a few drops of chloroform, as demonstrated in the case now under operation, may be given. Under its influence the patient soon sinks into a quiet undisturbed sleep during which the operative procedures may be carried out without further chloroform or ether in the majority of cases.



DR. JOHN DILL ROBERTSON

A brilliant young Chicago surgeon who has come to the front within recent years. Dr. Robertson is President of Bennett Medical College, which he has converted from an eclectic to a regular school, and is Head of its Department of Surgery

As to the efficiency of the anesthesia, it may be said that the two doses administered as just advised produce a perfect anesthesia of several hours' duration in weak patients and in those especially susceptible to the morphine-hyoscine influence. Other patients, apparently less susceptible to the action of these drugs, manifest considerable restlessness during the operation, and frequently these patients have to be spoken to rather sharply several times during the work. While these patients seem to be suffering con-

siderably at the time of operation, almost without exception there is no memory of the pain of suffering the day after the operation. This restlessness is particularly apt to be manifested upon incising or sewing the skin and upon the pulling of delicate structures like the peritoneum. On account of the restlessness which sometimes interferes somewhat with the manipulation of the operator, for certain cases we have recently adopted a modification in the technic of producing anesthesia.

#### Modification of Anesthetic Technic

If operation is to be made early in the day, a full-strength dose is given at bedtime on the night preceding operation. This insures a perfect night's rest, allowing the patient to come to the day of operation without the

nervousness and anxiety which often constitute such an annoying part of surgical treatment. Patients often say that did they not have the dread of the operation in the hours immediately preceding the operation while preparations are being made (often in the presence or within the hearing of the patient) there would be far less hesitancy in accepting surgery as a curative measure. This preliminary injection thus robs the operation of much of its terror and, therefore, constitutes a very important therapeutic indication.

About one hour before the operation another full strength dose is given. The patient then is brought to the operation-room fairly drowsy and is given positive assurance that no pain or discomfort will be inflicted. Along the line of incision, however extensive it may be, syringeful after syringeful (if necessary) of anesthaine is injected directly beneath and into the skin. No attempt is made to throw this stovaine solution into the deep tissues because another agent is to be employed for anesthetizing the deeper structures. The latter agent is a 1 or a 1½ percent solution of hydrochloride of quinine and urea, that is, two decigrams of the quinine urea salt are dissolved in thirty Cc. of distilled water (i. e. three grains to the ounce), and any part or all of this may be injected into the deeper structures to be cut. The most extensive operations may be performed under the influence of this combined anesthesia without the least discomfort or suffering on the part of the patient.

#### Advantages of the Local Anesthetic

The advantages of the anesthaine solution and the solution of quinine and urea are:

First, that they each may be boiled without destroying the anesthetic property, therefore rendering absolute sterility possible; an ideal condition not obtainable by any other form of local anesthetic.

Second, the anesthesia produced by this method lasts for many hours, and in some cases for days, so that postoperative pain under this method of producing anesthesia is a thing of the past. Those who have undergone operations are alone capable of appreciating this great advantage; indeed,

the abolition of postoperative pain and nausea and vomiting constitute in my opinion the greatest advance in anesthesia that we have ever known.

The only precautions necessary to remember, perhaps, are first that this type of anesthesia should not be employed anywhere within the throat; should not be used with very young children, nor with patients more than eighty years of age. In the last-named type of cases half doses of the H-M-C are sometimes permissible, and the anesthaine and quinine-and-urea solutions may be used without any fear of causing trouble.

#### Use in Obstetrical Practice

To the average practitioner, perhaps the most interesting feature of this form of anesthesia is the possibility of its use in obstetrical practice. Properly used the H-M-C anesthesia robs childbirth of its terrors. The method which has seemed to give the best results is to inject a full-strength H-M-C tablet at that period of labor when the pain becomes distressing. Generally the one dose is sufficient, if it is supplemented in an hour or two or three with a single dose of 1-100 of a grain of hydrobromide of hyoscine. The method of determining whether or not the hyoscine is indicated, or a repetition of the hyoscine needed, is "memory test."

For this test, the accoucheur exhibits to the patient some object, say, a watch or knife, when the effect of a hyoscine, morphine and cactin injection appears to have worn off. He asks if she can see and recognize what this object is. In ten minutes he asks her if she remembers what it was he showed her a few minutes ago. If she does not remember what the object was, nothing more is now needed, however much she may complain of the pain at the time, for there will be no memory of it next day. If, however, she does remember what the article was, the indication is plain for the use of the 1-100 grain dose of hyoscine hydrobromide hypodermically; and this may be again repeated in one or two hours if necessary. Usually the one full-strength dose of H-M-C and one injection of straight hyoscine hydrobromide will be all that is required to carry the patient through an otherwise long and tedious labor.



In extreme cases, and particularly in delayed labor, a second dose of the H-M-C may be needed, in which case only one-half strength doses should be employed. Properly used, as already stated, this anesthetic agent gives a labor the pain of which is not remembered by the mother the next day after the delivery.

In a primi-para, where it is evident that the perineum is likely to be torn and will have to be repaired immediately af-

ter delivery, it is well to inject a syringe of anethaine into the skin and perineal muscles when the head begins to press strongly upon the perineum; or a syringe of two of the solution of hydrochloride of quinine and urea may be used instead. This will so deaden sensation in these tissues that a very extensive tear may occur and the injury be repaired without the knowledge of the patient.

Much criticism of this method of delivery has been aroused—for various reasons. The only valid objection is that if the drug be administered too near the conclusion of labor there may be some difficulty in getting the child to breathe. This, however, is not a serious objection if the obstetrician immediately resorts to artificial respiration for a minute or two after delivery of the child; and after he has learned to use the agent properly there will be no further trouble from "blue babies."

Occasionally one will find a fanatic who opposes the use of the H-M-C anesthetic in labor, from so-called religious motives. For



DR. EMORY LANPHEAR

The well-known St. Louis surgeon, with whose work the readers of CLINICAL MEDICINE are familiar.

example, when I first advocated the use of this form of anesthesia in labor an old doctor in Ohio wrote me: "For God's sake, Doctor, cease advocating this measure in obstetrical work. If you do not, God will condemn you to eternal punishment, for he has said in his holy book, 'Henceforth, in pain shalt thou bring forth thy young.' So, my dear Doctor, I pray you that to save yourself from eternal torment you will not seek to induce doc-

tors to use this anesthetic and so upset the laws of our Creator."

I replied to him: "I am perfectly satisfied to take my chances of eternal torment if I can in the future relieve suffering women from the tortures of childbirth."

[It is not easy for a surgeon to push his way to the front in Chicago, but that is what John Dill Robertson is doing. Beginning with all the handicaps a man could have, he has made himself known as a power that must be reckoned with. He quickly saw that the day for sectarian schools in medicine was gone, and convinced his colleagues in the faculty of Bennett that this was the case. The phenomenal rise of this college since Prof. Robertson took the helm confirms his judgment and vindicates his leadership.]

Dr. Robertson is still a young man for a surgeon, but the man who before he is forty has made himself a place among Chicago's great surgeons has splendid possibilities before him.—Ed.]

# The After-Treatment of Hand-Lesions

By RALPH ST. J. PERRY, M. D., Parkers Prairie, Minnesota

*EDITORIAL NOTE.—Dr. Perry's exceedingly interesting series of articles, which deals with the common lesions of the hand with which every general practitioner must be more or less familiar, will be continued next month and in succeeding issues of "Clinical Medicine."*

## II

### REMOVAL OF INITIAL DRESSING

WHEN the time comes to remove the initial dressing there should be the same aseptic and antiseptic precautions as at the time of the operation. Even in a wound which is known to be infected or suppurating, carelessness may add a new infection, prolong the activity or enlarge the field of the existing one.

Remove the dressings carefully and without haste, cutting away from adherent portions with the scissors and soaking these adherent portions in warm saline solution until they soften up sufficiently to be removed.

Just as soon as the dressings have been removed, and before cleansing the wound, note carefully the amount, color and consistency of the discharge and the wound's odor; look for necrosed tissue, loosened and macerated, calloused epidermis, and examine the surface for the appearance of granulations. (Fig. 14.) This first inspection of the healing wound will reveal to the experienced surgeon a great deal that is of value regarding the condition of the wound, the probable course and duration of the healing, the character of the result which may be expected, and the nature of the future treatment.

Having noted all these points, the wound is washed with a warm saline or mercuric-cyanide solution, either by gentle irrigation from a fountain-syringe (Fig. 15) or dripped or run over the surface from a gauze or cotton mop. (Fig. 16.) If a syringe or irrigating tank be used, it should not be over three feet higher than the hand, as a greater fall gives too much force to the jet and may damage the healing tissues. After washing away the fluid portions of the discharge, there may be seen semisolid portions, more firmly adherent, which can be gently

wiped away with a cotton mop, or else some dried particles, and these are best loosened by applying hydrogen peroxide or iodized gasolin. (When using hydrogen peroxide upon a wound surface, the most efficient—and economical—way is to dilute it with an equal part sterile water and apply with an



Fig. 14. Carefully inspect the wound

atomizer or a medicine dropper, as shown in Fig. 17 and 18). After effervescence has subsided, rinse off the loosened particles with saline or mercuric-cyanide solution, repeating the procedure until the absence of reaction shows the wound to be clean.

Any necrosed tissue which adheres in spite of this cleansing may now be snipped away with small curved scissors (Fig. 19), so also skin tabs and portions of callosities which may have loosened up along the edges of the wound. The edges and surface of a



Fig. 15. Washing the wound with an irrigator, using operating pad and a slop-jar.

wound should be kept scrupulously clean and free from necrotic or macerated tissues, as these tender to harbor decaying discharges, offer a site for new infection, help to spread the existing infection, and prolong the healing.

After the cleansing of the wound comes the application of the new dressing, which may be a repetition of the first or such alteration thereof as existing conditions may call for.

#### Management of Purulent Wounds.

In all purulent cases, the dressings should be changed daily, or oftener if needed, and the wound cleansed, as just described, for several successive days or until it is seen the wound is well filled in with granulations, the reparative process nearly completed and the discharge greatly diminished; after which the dressings may be changed every other day, then every third day, and so gradually less often as the healing progresses.

The odors of foul-smelling wounds, of iodoform or other malodorous applications can be measurably suppressed and partially overcome by a deodorant dressing made by

bandaging the wound in gauze dampened with compound tincture of benzoin, or with a 5-percent solution of formaldehyde.

Where retaining or approximation sutures have been put in place at the first treatment but not drawn up and tied, this should be done as soon after the subsidence of inflammation and swelling as the condition of the wound shows that the parts can safely and advantageously be approximated. Most sutures are too tightly drawn; be careful not to err in this way.

After a scab or crust has formed, there will be no further change of dressings or



Fig. 16. Washing the wound, using a cotton mop and enameled pan.

cleansing of the wound, unless the crust be premature and pus is collecting underneath, in which case it should be removed and the dressings continued until a normal scab or crust does form. A scab should never be pulled or picked off, but allowed to remain in place until it falls off. The patient should be instructed on this point and warned to refrain from scratching or meddling.

#### The Hot-Water Treatment

The hot-water treatment, with its irrigators and drip-pans, has largely been super-

seded by modern methods, yet there are cases where the method is decidedly the most efficient and the most satisfactory both to surgeon and patient. In severe crushing



Fig. 17. Applying hydrogen peroxide with an atomizer.

and mashing injuries with marked reaction, great swelling and considerable pain, I believe a hot-water dressing, if carefully and thoroughly carried out, will do an immense amount of good.

The paraphernalia necessary consist of a large fountain-syringe or other suitable reservoir, with rubber tube (with stopcock or clamp) connection to a dripping-tip; a pan or trough in which the hand can lie and which has a drain-pipe and tube leading to a bucket on the floor. A satisfactory dripping-tip can be constructed of a piece of rubber tube by sealing one end with wax and burning with a red-hot needle a line of small holes on one side. The apparatus, when in use, may be suspended over the side of the bed or laid on a chair alongside of the patient.

In using, the hand is rested upon a bed of oakum or jute in the bottom of the pan, and over may be placed a layer of gauze, as deemed advisable; the dripping-tip is laid lightly on top of the gauze or suspended horizontally an inch or so above the wound.

The drain-pipe and tube must be large enough to avoid easy clogging. The irrigating solution of plain or medicated hot water should be replenished from time to time, as required, while the gauze covering is changed as needed.

This method of treatment permits of easy examination by the surgeon, but it entails constant attention, day and night, and must not be entrusted to any other person than a paid nurse, whose remuneration and reputation depend upon work well and faithfully done. Others, be they relatives or neighbors, are prone to neglect or forget, or even to modify and meddle with the treatment, and thus cause failure.

#### Yeast Poultices

The yeast poultice is an effective method of treatment in cases where there is excessive



Fig. 18. Applying hydrogen peroxide with a medicine dropper.

reaction, where large sloughs develop and do not readily separate from the underlying healthy tissues, or wherever gangrene may threaten.

To prepare this poultice, take of beer yeast, one pint, and stir into it half a pint of finely sifted corn meal; set in a warm place

until it rises; then, into this dough, work one ounce of powdered charcoal. Spread the mixture freely upon a strong, clean cloth, and apply this directly to the wound surface. Renew every twenty-four hours, as needed. The poultice becomes dry upon the wound and may adhere to the parts, but it can be softened by wetting with warm water and thus easily removed.

#### The Period of Granulation

Not every wound pursues the even tenor of its ways to a satisfactory recovery; there may come a stagnation of granulation, or an exuberance may cause trouble.

A healthy wound presents a surface studded with florid, red granulations about the size of a mustard seed bathed in a thick, creamy, yellow pus (the "laudable" pus of years ago), and is without pain, tenderness or edema.

Occasionally, however, the reparative process falters because of weak granulations, which become flabby, semitransparent, and lose their rich, red color.

Such a condition calls for stimulation, and a few applications of a weak solution of copper sulphate or zinc sulphate, or touching lightly with silver nitrate, will give them the stimulus necessary to incite new life and energy. A solution of ammonium chloride, consisting of 1 ounce to one pint of water, and one ounce of alcohol, is a most satisfactory revitalizer of weak and dying granulations, especially in cases where gangrene

threatens. Unfortunately its application causes some smarting and burning, and this discomfort has been allowed to overshadow its immense power for good. A 5-percent solution of trichloroacetic acid is also most excellent as a stimulating application, especially where a syphilitic element is involved.

Stimulation of granulations should not be persisted in for too long a time, lest irritation arise and thus do more harm than good.

#### Nourishing Applications for Granulating Wounds

Granulations which fail to respond to a reasonable amount of stimulation should be "fed," a process often called for in patients who suffer from general anemia. The technic of granulation feeding is as follows:

First wash the wound with normal saline solution, then treat with hydrogen peroxide, and repeat this process several times until the wound is thoroughly cleansed; gently dry the surface. Examine for necrotic spots, remove any necrosed tissues found, and again cleanse and dry. Now cover the wound surface with one-inch-wide strips of plain aseptic gauze, these overlapping each other and extending an inch or more beyond the edges of the wound. In deep or irregular wounds pack the gauze very gently into all parts of the wound. Saturate this gauze with full-strength bovine, then apply a sterile gauze bandage. Over all wrap a single thickness of rubber tissue and apply the usual supporting dressings. Granulations should be fed at least once daily, and oftener in aggravated cases.

The pure bovine may, in some patients, occasion smarting or burning; if so, this can be prevented by diluting with normal saline solution, not to exceed to one-half. If continuous feeding of the granulations be desirable, the overlying gauze may be kept wet, without removing the protective dressings, by injecting the nutrient liquid into the gauze with a hypodermic syringe. If desired, the bovine can be rendered antiseptic by adding from 2 to 5 percent of iodoform or other germicide iodine compound. Nuclein may be used in place of bovine, or also in combination or alternated with it, in case the former alone does not seem to satisfy the requirements.

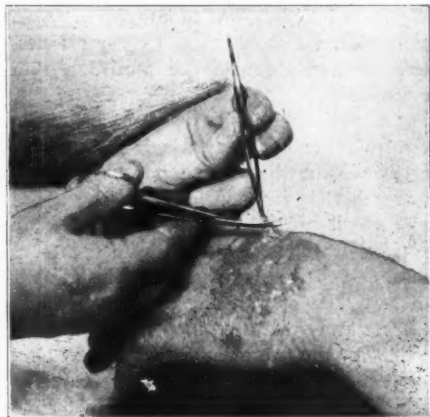


Fig. 10. Clipping away necrosed tissue.



Exuberant granulations, commonly called "proud flesh," are as detrimental to healing as the weak ones, and they are readily detected by their large size, gelatinous appearance, and rapid growth after rising high above the surface of the paratrauma. In their incipency, they may be subdued and checked by applications of mild caustics, such as burnt alum, as also by elastic pressure; but if fully developed and of large size, the best policy is to eradicate them by curettage or by cutting them away with the scissors, after which the tendency to exuberance may be checked by the mild caustics and elastic pressure. This treatment should continue no longer than necessary lest it hinder healthy granulation.

#### Skin Grafting

Where a large granulating surface exists and it is palpable that cicatricial contractions or deformity will follow unaided healing, or where it is manifest that much time can be saved by the process, it is advisable to resort to skin grafting. Skin from the patient or from some volunteer may be grafted according to the Wolfe-Krause method, using small grafts upon a well-cleansed surface. Experience has proven that Thiersch grafts do not prevent the subsequent development of cicatricial contractions. In many instances portions of skin may be transplanted *en masse* to cover the raw surface, leaving a pedicle attachment through which the circulation is maintained until the graft has become attached to its underlying tissues and established a new basis of nourishment.

Case 6.—Machinist. The back of the hand came in contact with a belt edge and a piece of skin as large as a silver dollar was torn away. The wound was cleansed thoroughly of dirt and grease, blood and serum, and then a piece of skin of the same shape, only one-half inch larger in diameter, was dissected from the side of the chest and transferred directly to the wound surface, stitched in place, and dressed with paraffin netting (q. v.) and iodoform gauze. In a few days it was manifest that union of the graft had taken place, and on the tenth day the sutures were removed.

The graft taken from the chest-wall was larger than the defect to be filled because of

the necessary allowance for the shrinkage which invariably takes place in the grafted skin when transferred to another site. The defect in the chest-wall skin was readily closed by loosening up the subcutaneous paratrauma and approximating the edges of the wound. A perfect result was secured both on the hand and chest.

Case 7.—Farmer. The hand was caught in the tackle of some hay-hoisting gearing and an elongated piece of skin torn from the back of the hand. The wound was cleansed of dirt, grease and blood, and the entire hand and forearm were made as aseptic as possible. A flap was dissected from the forearm with the distal end left attached; this flap was twisted upon itself and sutured in place, filling the defect on the hand; the defect on the forearm was closed, excepting the lower third, where the flap was still attached. The whole was dressed as was the preceding case.

In three or four days, the transplanted flap, or graft, having gained an attachment, the connecting part of the flap was cut and the two ends were sutured in place, one on the dorsum, the other on the forearm, and the latter defect was closed entirely. One week later all stitches were removed.

Case 8.—Plumber. A pot of molten solder was spilled over the back of the hand, and the burn was such that it was plainly seen that skin grafting was absolutely essential to a successful outcome. The wound was given the usual antiseptic and vulnerary treatment for burns until reaction had subsided, when the wound surface was thoroughly cleansed with bichloride solution and hydrogen peroxide and made ready to receive a skin graft.

A flap of sufficient size was now loosened up from the abdomen, leaving both ends attached, the cleansed hand was slipped under this flap far enough to allow the wound to be well covered and the flap sutured in place. The arm and hand were then fixed firmly in place by means of plaster-paris dressings, to prevent any accident or other tearing away of the sutured parts. On the tenth day the two ends of the flap were cut loose and the several free edges sutured in their respective places. The abdominal defect was closed by loosening up the sub-

cutaneous tissues and approximating the edges.

Case 9. Frizzer machine operator. In working on a piece of wood, his hand slipped in some way and the palmar skin was torn away in shreds so finely raveled that it was impossible to utilize any part of it in repairing the injury. The lacerated surface was smoothed out and prepared for grafting. A flap of suitable size and shape was dissected from the outer aspect of the thigh, with one edge left attached, and reflected so as to bring its raw surface in contact with the wound surface. It was then sutured in place and a pad of iodoform gauze was fastened over the graft, so as to force it to conform to the concavity of the palm and secure good contact at all points. The arm and hand were then securely fastened to the side by means of plaster-paris bandages. On the tenth day the attachment of the flap to the thigh was severed, the ends were sutured in place, and the thigh defect closed by loosening up the subcutaneous para-trauma and approximating the edges.

#### **Egg Membrane for Grafting**

The grafting with egg membrane has acted well in some instances where there was nothing to be feared from cicatricial contractions. After the wound surface has been prepared, the cleansed raw, absolutely fresh egg is broken open and the shell emptied.

The membrane is carefully peeled out of each half-shell, cut into narrow strips, to overcome the convexity, and laid, inner side down, upon the granulating surface; over these are laid strips of rubber tissue which have been dipped in a mixture of equal parts of balsam of Peru and castor oil, and the whole covered with the usual protective and supporting dressings.

In several cases skin from the belly of the bullfrog has been successfully grafted, although, as a rule, heteroplastic grafts are ineffectual.

#### **Paraffin Protective Film**

A paraffin film, which forms a cheap and satisfactory protective in cases of skin grafting, is prepared as follows: Distilled water is boiled in a shallow and wide sterile vessel,

an enameled pie-pan being excellent for this purpose; a small piece of 113° to 116° paraffin is dropped into the water and boiled for twenty minutes; then the vessel is removed from the fire, covered and placed to one side to cool. The paraffin will be found as a thin film covering the water. If desired, a reasonable amount of iodoform or other similar antiseptic can be incorporated in the film by sprinkling the substance over the surface of the paraffin while still molten.

[The thickness of the film will be determined by the weight of paraffin relative to the vessel's diameter, which must be determined by experiment.—E.D.]

Drainage holes can be made in the film by perforating it with a hot aseptic needle. These films may be kept indefinitely by packing them away between sheets of aseptic filter or blotting paper kept moist with an aqueous antiseptic solution and pressed together, to exclude the air.

When desired for use, one of these paraffin films is laid upon a lukewarm aseptic solution (Thiersch's or normal saline), which renders it soft and pliable. It is handled with cold sterile instruments only, and after being cut into shape, is laid upon the wound with the water-side down.

#### **Paraffin Netting**

Paraffin netting is an improvement upon the paraffin film and which was devised by me some years ago and which is now used almost entirely in my skin-grafting operations.

Silk netting with a mesh of about 1-4 inch (no larger, but not smaller than 1-8 inch), is boiled in plain water for half an hour to remove the starch, gum or other stiffening substance; then rinsed in plain sterile water; next boiled in 1:5000 mercuric-cyanide solution for half an hour; dried in the oven for about five minutes at a not too high temperature; and finally saturated with the paraffin solution and dried in the open air. During all this preparation the netting is kept spread upon and fastened to wire frames about 6 inches square.

The paraffin solution used is made by dissolving sterilized or boiled pure paraffin in redistilled absolutely clean gasoline. The solution can be medicated by adding iodo-

form, iodine crystals, or any other suitable antiseptic soluble in gasolin.

This paraffin solution rapidly permeates the substance of the netting, and when the gasolin evaporates it leaves a soft, flexible, nonabsorbent, nonadhering, antiseptic retention dressing, through which wound secretions readily pass, over which gauze, cotton or other absorbent dressings can be applied and removed without fear of their

pulling off the partially adherent grafts, and which is sufficiently open-meshed to permit of free inspection of the wound surface. Several pieces of netting may be prepared at one time and can be preserved for future use as described for the paraffin films. Immediately prior to being applied to the normal surface the netting may be washed in sterile normal salt solution.]

(To be continued)

## The Nez Percés Indians

By CHARLES STUART MOODY, M. D., Sandpoint, Idaho

*EDITORIAL NOTE.—Dr. Moody's articles grow in interest. While they are not strictly "medical," yet they contain much matter of special interest to physicians, and as revealing the little-known home life of the Indian they give us light on medico-sociologic phases of the "Indian question" which are of the utmost importance. Not only our physician-readers, but their wives as well, enjoy Dr. Moody's "story." It will be continued for some time to come.*

### IV

#### Friendship Ceases, War Begins

**A** MOST dramatic series of events severed the bond of amity cemented between the Nez Percés and the whites by Lewis and Clark and brought about, as a culmination, the Nez Percés War, a tiny little struggle, but one that served to show of what metal these people were made.

Could we enter into an extended study of the causes for the war, it would prove a valuable means of understanding many things about Indian character. Space forbids more than a passing mention of even the salient points, such as actually brought about the feud and are illustrative of Indian methods of reasoning.

#### The Nez Percés Were the Paleface's Friend

As has been previously stated, the Nez Percés always held the friendship of the whites at its highest worth. They looked upon the paleface as a natural ally, and with characteristic Indian fidelity sought to continue the ties that bound the two races together. It can, then, be readily understood that the Indians suffered many indignities at the hands of the whites before appealing to the stern arbitrament of arms to adjust their wrongs.

To the westward-bound emigrants, in the early period, the middle of the western frontier settlement, the country of the Flathead, Nez Percés and Cœur d'Alene Indians, was a blessed oasis in the otherwise boundless desert of Indian hostilities. From the time the heavily laden ox-wagons crossed the Platte until they entered the Flathead and Nez Percés country they were surrounded by hostile bands of redskins. Eternal vigilance was the price of life while crossing through the Cheyenne, Sioux, Arapahoe and Blackfoot country.

When the pilgrims crossed the Rocky Mountains and entered the fertile valley of the Bitter Root or that of the Kooskia River they felt safe—they were at last among friends.

Guards were no longer necessary, the travelers could lie down in peace at night and sleep, nor fear to be aroused by the war-whoop of the savage. They could turn their tired stock on the range to graze, well assured that in the morning they would not be gone. More, hunger often stared them in the face, and the Indian hand was always stretched forth with such as he had to give. Often it was but little, but that little was given freely, even though the donor himself went hungry.

How was all this friendship and trust on the part of the Indians requited? It is a long, sad story, one that is calculated to make the humanitarian blush for his country.

The trouble all began in the white man's disregard of the rights of the Indian. We have ever been prone to think, "Oh, he's nothing but an Indian, therefore not entitled to consideration." Anglo-Saxon arrogance has always pictured the white man as the especially favored of the Almighty and invested by him with peculiar rights and privileges, among which stands preeminent the right to appropriate the property of others without consideration or recompense.

Among all the tribes of Indians property rights were held inviolable. Each tribe or nation held title to a certain territory, and every other tribe respected that right. Invasion of an enemy's territory for the purpose of land conquest was unknown. The Indians often engaged in wars, but these wars never took the character of conquest. Surrounding the land of each Indian tribe was a strip of territory that was strictly neutral ground, where members of the different tribes could meet in perfect peace, no matter how hostile they might be upon their own territories. This neutral land gave rise to the belief among the white people that the Indians did not have any fixed idea as to the boundaries of their possessions.

We will now return to the Nez Percés and endeavor to tell as briefly as possible the salient points in the contention that arose between them and the federal government over the right to a certain tract of land.

#### Something About the Indian Lands

At the time of the visit of Lewis and Clark the Nez Percés occupied a vast territory in the drainage basin of the Kooskia, Snake and Salmon rivers. The explorers touched only a small portion of this region, but their report makes it appear that they explored practically all of it. The land drained by the Salmon, Imnaha and Wallowa rivers was never reached by the exploring party and the inhabitants of these sections were not considered in the estimate of the Nez Percés (*Chopunnish*, in their own language) people as given in the journals of the expedition. Several powerful tribes, including the one

of the head hereditary chief, occupied this country, and it was as much a part of the Nez Percés land possessions as that bordering the Kooskia and its tributaries.

For many years after the advent of the first whites no attempt was made to secure any Indian territory. The western country was involved in the meshes of international controversy. Great Britain claimed all the country drained by the Columbia, basing her claim upon the discoveries of Vancouver, while we laid claim to the same territory, urging the voyage of Gray as the basis of our contention. The matter was finally amicably adjusted by both nations accepting less than they originally claimed. The 49th parallel of north latitude was adopted as the dividing line, and so the matter that had threatened a third war with England passed into history. That is, it became history so far as Great Britain and the United States were concerned.

However, to the Indian citizens of the country now owned by the United States, the question was still a living, vital issue, one destined to work them a great deal of hardship in the few years next to follow the consummation of the Webster-Ashburton treaty.

#### Invasion of the White Man

The few returning missionaries, fur traders and explorers carried to the eastern states the news of the wonderful fertility of soil, salubrity of climate, and manifold natural advantages of the western coast. The restless Anglo-Saxon spirit caught fire at the glowing accounts, and very soon wagon trains were headed toward the Pacific in quest of new homes and fresh wealth.

The discovery of gold in California led to its discovery also in Oregon, and in the few years succeeding 1849 the Oregon country became overrun with prospectors who, failing to find wealth of yellow metal, turned their attention to the riches dormant in the dark loam of the new land. They "squatted" on whatever piece of land best suited their fancy, irrespective of the wishes of the original owners. Small settlements sprang up in the rich valleys and the red man saw his best garden-spots ruthlessly torn from him. Many of the western-bound emigrants entered the "Oregon Country"

over the old "Oregon trail" which led through southern Idaho and across eastern Oregon, through the Imanha and Wallowa, the ancestral seat of the Nez Percés nation. It was a wonderfully fertile country, this land of the Wallowa, a rich black soil, well watered, and having a delightful climate.

It was but natural for the dominating white man to wish to possess such a land. To wish was to attempt. In a few years we find the heavily laden wagon turning aside from the onswEEPing tide and coming to a halt beside the cold springs of the Indian. We find the white man building himself a rude cabin and fencing a few acres of land, enclosing the spring. We find him loosing his herds of kine on the green hillsides to consume the grass. All of these things the Indians viewed with disfavor, but with characteristic Indian reticence they said nothing. They did not realize at first that they were being gradually pushed to the wall.

#### **"Old Joseph" Resents Further Encroachment**

"Old Joseph," then head chief of the Nez Percés, was a shrewd, calculating old savage. He soon grew to view the influx of white population with considerable alarm. He foresaw the effect upon his neighbors to the west, but, with the usual strange fatalism of an Indian, did not believe his own country would be invaded. The missionary settlement at Lapwai did not concern him; if the Kooskia Indians chose to harbor the white people, that was no business of his. He did not accept the new teaching about the Nazarene, nor did he encourage his sons, Joseph and Ollicut, to do so.

In his mountain valley, beside the lovely Wallowa Lake, the old chief dwelt with his people, nor dreamed that a time was rapidly approaching when he would have to battle for his ancestral land. That time came on apace. The Grande Ronde to the east settled up, the entire country to the west, along the Columbia, became populated, and still other land-hungry people poured into the red man's country—and so the second act of the drama opened.

The Indians bore the encroachment for several years, until the range became nearly all fenced, and what was not, was cropped close by immense herds of sheep, cattle and

horses from the Grande Ronde. The Indian ponies suffered, more especially when it is understood that an Indian makes no provision for wintering his animals, leaving them to forage on the hills. The water was being appropriated by the white settlers for irrigating purposes, and so, the Indian stock, in order to slake their thirst, were often compelled to break down fences. This incensed the whites and they retaliated by shooting the animals.

#### **Relations Growing More Strained**

Thus matters ran along for several years, the relations growing all the time more strained.

At last "Old Joseph" called on the Indian Superintendent to remove the white people from his land. However, as the superintendent had, unluckily, to look after the vast region bounded on the east by the Rocky Mountains and on the west by the Pacific Ocean it was several years before he got around to attend the Indian's wants. He finally came, talked the matter over with "Old Joseph," and then promised that the white people would be caused to vacate the country. He likewise talked to the white settlers and—well, they did not vacate.

With an Indian, as I before stated, his word is as good as his bond, and they were fatuous enough to believe that the white man also had the same regard for his pledge. The Indians waited some more years for justice, but justice came not. The country still kept filling up.

#### **The Treaty of 1855**

Then came the treaty of 1855. The eastern-Oregon, northern-Idaho and central-Washington tribes were asked to convene in the Walla Walla Valley, at Camp Stevens, in June for the purpose of adjusting their differences with the government. That was what appeared on the surface. In reality the meeting was held for the sole and only purpose of hoaxing the Indians out of several large and desirable slices of their territory. With the provisions of the several treaties entered into with the other tribes we have nothing to do, only that made with the Nez Percés concerning us here.

"Old Joseph," with his followers, came from the Wallowa. The "Lawyer" and his



people came from the Kooskia. With this latter Indian came the Rev. Spaulding, to assist in the deliberations and secure to the Government such concessions as he deemed best. The reverend gentleman made himself so officious that "Old Joseph" finally became angry and pointedly told him that a missionary's business was with souls, not lands, and that he must quit interfering with matters that were none of his concern.

#### **The Indians Refuse to Yield Possession**

The Kooskia Indians, being largely Christian, were anxious for the Wallowa lands to be ceded to the Government so that their brethren would be compelled to remove over to the Kooskia. They had a stormy session. The Wallowa Indians refused to dispose of their homes at all, but finally decided to cede a vast region in the Bitter Root Mountains that was unoccupied and used by them only as a hunting ground. Even at that, "Old Joseph" refused to sign the treaty. While it did not interfere with his home, in fact secured it to him, the old warrior insisted that if he parted with any portion of his domain, it would be only a short time until he would be called upon to yield up another part. You see, "Old Joseph" was beginning to discern the mailed gauntlet of greed beneath the kid glove of friendship.

It seems the old man had an almost prophetic intuition of what was to come, for a few years later, when he came to die, he called Young Joseph to him and exacted from the coming leader a promise that the land of the Wallowa should never be given up.

For years the treaty of 1855 was not ratified. The Indians complained of the lack of faith on the part of the Government in not causing the whites to vacate the country. As a matter of fact, the Indian authorities were either powerless or did not care to act, and kept putting the Wallows off with promises that never were intended to be fulfilled.

For several years prior to the death of "Old Joseph" the reins of tribal government were given into the hands of his eldest son, Young Joseph, or in Nez Percés tongue, Hali-hali-keen. Young Joseph was the most sagacious Indian I have ever known, and a man of more force of character than I

ever witnessed in a savage. He was a natural leader, a skilled diplomat, honest as the light of day, and filled with a great patriotic ardor.

The Government had had a covetous eye upon the Wallowa country for a number of years. According to all accounts, the Indians possessed too much land and ought to have some of it taken away from them; but being stubborn, they persistently refused to dispose of it for a few blankets and a few rations of moldy flour and prehistoric beef. These obstinate and purblind creatures insisted that if they were let alone they could subsist very comfortably on the natural products of their country. All the pleadings of self-interested missionaries or the cajolery of government officials failed to budge them from their position.

Something had to be done to get those lands. Oregon had been admitted into the Union and her citizens were in possession of the ballot. It was to the interest of the politicians to placate them rather than those ignorant savages who were not invested with the rights of citizenship.

#### **Young Joseph and His Indians Are Tricked**

A meeting was called, in 1863, at Lapwai for the purpose of purchasing the Wallowa lands. The Wallowa Indians, under Young Joseph, came and found the council-tent packed with Indians from the Kooskia, brought there for a purpose. The session opened in due form. The treaty commissioners made the Indians a proposition to purchase the land, which Young Joseph declined to accept. The Kooskia Christian Indians then took a hand, and after several days of debate the matter was put to a vote and the land sold. The Wallows returned home, their hearts rankling with hate. They resolved to retain possession of their homes even at the expense of bloodshed.

It will be understood that the Indians who voted to dispose of the lands were in no way concerned in the same. They lived on the Kooskia, many miles from the territory under discussion, and their vote was controlled entirely by their religious teachers. It was a smooth political scheme, one that would do credit to Tammany in her palmiest days.

The Government very promptly called upon the Wallowa Indians to vacate their homes; they, however, very promptly declined to do so. They refused to accept any portion of the purchase price of the lands in question and held that, inasmuch as they had refused to cede the lands, they were not obligated to recognize the cession made by their brethren of the Kooskia.

It may be well enough to pause here long enough to explain that the Indians of the Kooskia were perfectly honest in their desire to have their brother tribesmen of the Wallowa with them. They thought it would be better for all elements of the tribe to be united. Several miles intervened between the two principal divisions and, inasmuch as Indians are gregarious creatures, the Kooskia Indians were solicitous for the companionship of their fellows. That they permitted themselves to be imposed upon by interested white men is nothing to their discredit. History teems with instances of where designing persons have influenced the voices of men higher in the scale of enlightenment than the Nez Percés Indians.

In 1873 (June 16) President Grant ceded the Wallowa Valley to the Indians but neglected to order the white settlers to vacate. The latter naturally raised a howl, and so a year later the President took the land away again from the Indians. This raised a protest from the natives and provoked this speech from Chief Young Joseph: "Am I child that you should give me a toy today and tomorrow take it away again? Why do you not know your own mind? If you intend to take my land, take it and keep it; not take it and then give it back again. I am a man, treat me as a man, not as a child."

#### **The Government Finally Provokes Hostilities**

Evidently the Indian Bureau concluded to take the Chief's advice, for in the spring of 1877 it issued an order to the Indian

Agent at Lapwai to set about removing the Wallows at once. The Agent communicated with General Howard, then Department Commander of the Division of the Pacific, asking him to hold the military ready to assist in effecting the removal, for he guessed that the Indians would not comply without a struggle. At the same time the Agent sent several friendly Indians over to the Wallowa to plead with Joseph and his people to come on over and choose homes on the Kooskia. The errand was fruitless. Joseph flatly declined to move and sent word to the authorities to come with their troops and take him, as the General had threatened to do the year previous at a council held in Lapwai.

General Howard, upon receipt of the telegram from the Agent at Lapwai, hastened with all speed from his headquarters in Portland, Oregon, to Lapwai. He called a meeting of the Wallowa and other interested Indians to be held there. This meeting convened in May (1877), with all the so-called "nontreaty" Indians in attendance. There were present Joseph and his brother Ollicut, Hush-hush-cute from the Asotin, White Bird and Too-hul-hul-sote from the Salmon River, and Looking-Glass from the forks of the Kooskia—though the latter was not concerned in the removal order.

The "talk" was a very stormy one and resulted finally in Howard arresting Too-hul-hul-sote and placing him in prison. This old savage was the head "*tu-at*," or medicine-man, of the "nontreaties," and his arrest was a terrible blow to Indian dignity. No sooner had old Too-hul-hul-sote been lead away, than Joseph arose and, followed by his cohorts, sulkily walked out of the council-tent.

War was now inevitable. The blind obstinacy of one man had made it so. Of all the insane acts of a sane man the arrest of the high priest of the savage religion was perhaps the most insane.

*(To be continued)*



# The Redbank Physicians' Protective Association

*A Practical Plan for the Economic Betterment of the Medical Profession*

By C. E. SAYERS, M. D., Hawthorn, Pennsylvania

## II.

HAVING formulated a plan which to me seemed worthy of consideration and trial, I decided to present it to other physicians for their approval or disapproval.

### The Preliminary Steps

It was during the month of February, 1909, when after an early morning consultation with my worthy colleague, Dr. C. V. Hepler, I invited him to my office for a little private talk. We discussed the question of fee-bill, collection of bad accounts, deadbeating, etc., and I found that he, too, was very much dissatisfied with the existing conditions. Taking him into my confidence, I told him of the better plan, explained its advantages, and asked his assistance in interesting other physicians. He agreed to do this, but seemed somewhat in doubt as to results.

We then took up the question with Dr. F. K. Booth of Fairmount City, a little mining town three miles south. He also expressed his disgust with the prevalent conditions and said he was ready and willing to drop the oldtime ways for even a hope of something better. We spoke to others, and thereupon called a meeting for February 23. This was the first R. P. P. A. meeting. It was held in my private office with but three present, viz., Drs. Booth, Hepler, and myself.

We talked over our grievances and the proposed plans for relief. We discussed the attitude of other physicians and various plans for reaching them, made note of a few of the worst deadbeats, and adjourned to meet one week later. In the meantime the other men were interviewed, the question was discussed with them, and an invitation extended to join with us. The second meeting was held in the office of Dr. Booth,

with but the same three in attendance again.

The reports, all in all, were encouraging and we could see that we were gaining ground. Matters were getting interesting now. At the next meeting five were in attendance; and two weeks later we had eight in all.

### A Permanent Organization Is Effected

At this meeting we adopted a Constitution and By-Laws, effected a permanent organization, and elected President, Vice-president, Secretary, Assistant Secretary, Treasurer, and three Judiciary Committees. We were now ready to begin active work in our chosen field of action with the following practising physicians as charter members: J. A. Wick, A. J. Hepler, J. M. E. Brown, E. K. Shumaker, P. W. Shumaker, of New Bethlehem; F. K. Booth of Fairmount City; and C. V. Hepler and the writer, of Hawthorn.

This little band of physicians, forming a nucleus for a great and growing organization, worked along earnestly but cautiously, testing and perfecting the plans which have wrought so great a revolution in the practice of medicine in the Redbank Valley, and thus put themselves upon a firm and broad basis for a grand and noble work.

### The Question of Legality Settled

After several months of successful operation the question of legality came up. We had heard of several similar organizations that were said to have been abandoned because of their supposed illegality. The time had come that this question with us be settled once and for all. For this purpose, the writer was authorized to employ legal counsel and lay the whole matter before him. Accordingly, Don Carlos Corbett of Clarion, one of the ablest lawyers of western

Pennsylvania, was engaged, who gave the scheme a thorough examination and, in his final opinion rendered, he recommended but one single change. This change we made without, in any way, lessening the effectiveness of the plan as a whole.

The settling of this matter eliminated all questions of conspiracy and illegal combination, and today, although we stand as an oath-bound secret organization, yet we feel perfectly safe under the present laws of our commonwealth and nation.

#### **Qualifications Essential to Membership**

No person can become a member of this Association who is not a legally qualified and active practitioner of medicine, or when the ballot shall contain two or more negative votes, or who shall refuse to sign the Constitution and By-Laws, and to take the required oath to support, obey and defend the same.

#### **Division Into Local Branches**

For practical purposes, the membership of this Association is divided into local branches, named according to locality, and numbered according to relative time of admission.

On the first Monday in January of each year, each local branch chooses its own officers, consisting of a President, a secretary and Assistant Secretary. When elected, each local President becomes a Vice-president, and each local Secretary an Assistant Secretary of the general association.

#### **Dealing with Delinquent Debtors**

Two lists of debtors are prepared and kept by the Association. The first is known as the delinquent list, which is made up, revised and completed at each of the various local meetings, and upon which each member may place a limited number of his delinquent debtors for the inspection, information, benefit, and protection of the other members of the Association.

The second is known as the precautionary list, and upon it are placed the names of such undesirably slow-paying, dishonest, creditor-avoiding, shirking, and dead-beating members of the laity as the Association might be the better off for knowing.

Each local Secretary reports weekly all additions and changes made on the lists in the local meeting, to the general Secretary, who in turn publishes and mails to each member a bulletin showing such changes.

This system of reporting delinquents and our manner of handling those listed as such constitutes one of the effective features of our Association's work, and serves to us a purpose similar to that of Dun and Bradstreet in the commercial world. But our results are better because there is a closer bond of union between the members of our Association than between ordinary business men.

#### **Work of the Meetings**

We hold two kinds of meetings, local and general. The local meetings are held weekly, usually on Monday evening, by the various local branches. At these meetings the lists are made up, revised and completed, collections, deadbeats and local ethics are discussed. In fact, we come together as members of a common brotherhood to take up, talk over, and dispose of those little unethical entanglements which have always, heretofore, kept up the spirit of rivalry and antagonism so delightful to certain classes of the laity. Before, if a man had a little grievance, he often carried it in his heart till it grew to such wonderful dimensions that it took half a lifetime to forget it. Now, he talks it over in a fraternal way in these meetings, things are made right, and soon all is forgotten.

On the first Tuesday in the months of January, April, July and October all these local branches come together in a general meeting for the consideration of plans and topics along this special line of work. No medical nor surgical subjects are mentioned. For example, at the January meeting papers were read on these subjects: "That Old Book of Mine" (a retrospective view of the ledger of a hard-working physician, with special reference to old and outlawed accounts contained therein, and what they represent in actual expense and personal sacrifice to him), "Ethics of Harmony," "An Obligation," "Whom Shall I Serve?" (a comparison of other professions with the medical), "The Past, the Present, and the Future," "Better Prices for Physicians,"

"Protection that Protects," "That Silent Code."

We hope to give, at some future time, to the readers of this journal the benefit of at least three or four papers selected from this list.

#### The Plan Works Well

To say that our plan is effective is putting it very mild. No one can fully appreciate

this until he becomes a member and gets acquainted with the details of the work. This effectiveness owes its strength, in a large measure, to the required oath of admission, to the secrecy of the meetings, to the frequency of the local meetings, and to the strict but voluntray adherence to "The Silent Code," of which we hope to tell you more later.

(To be continued)

## The Nature and Treatment of Varicocele

### *Its Surgical Treatment Under Local Anesthesia*

By **BENJAMIN H. BREAKSTONE, B. S., M. D., Chicago, Illinois**

Professor of Principles of Surgery and Clinical Surgery, Bennett Medical College;  
Consulting Surgeon, Mary Thompson Hospital for Women; Attend-  
ing Surgeon, Jefferson Park Hospital

**EDITORIAL NOTE.**—In his article last month Professor Breakstone described the scrotal operation for the cure of varicocele. We suggest that this article be read before perusing the one which follows, which deals with the suprapubic operation. Next month the subject of "Every-Day Surgery" will be continued.

#### II.

**I**T is preferable, in a great many cases, to do a suprapubic operation for varicocele.

This operation has many advantages over the scrotal operation, inasmuch as it

is performed in a field which can be asepticized much more readily than the scrotum and can be kept aseptic after the operation.

The field of operation is to be prepared according to the prescribed rules for securing

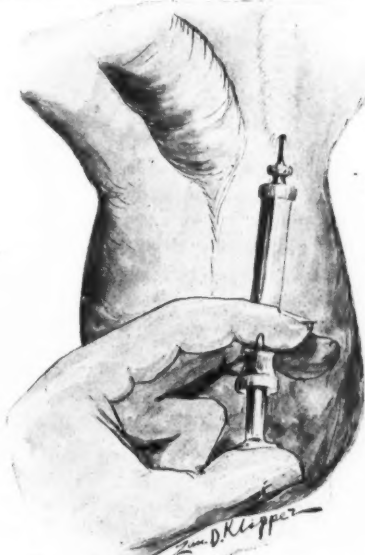


Fig. 1. Inject anesthetizing solution along line of incision.



Fig. 2. The cord is exposed and the veins separated from the vas deferens.



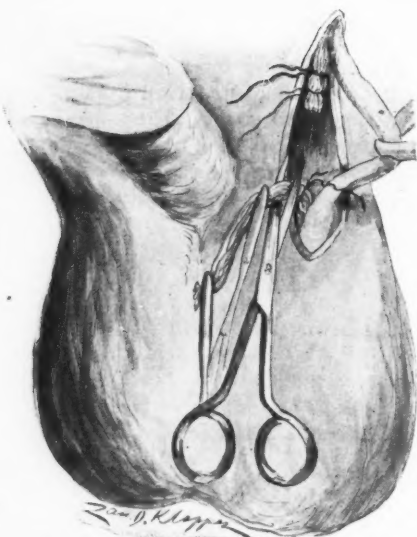


Fig. 3. A sufficient section of the veins is removed.

asepsis. Then the anesthetizing solution is injected along the line of incision, which extends upwards from the pubic spine for two to two and one-half inches, as shown in Figure 1.

While waiting for the solution to take effect, the instruments are prepared. These consist of a knife, scissors and half a dozen artery forceps and two pair of tissue forceps, needles, catgut and horsehair or silkworm gut.

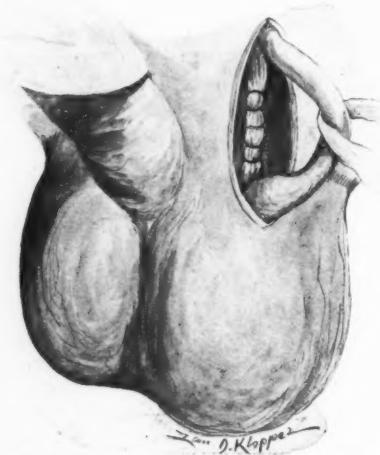


Fig. 4. The veins are brought together and sutured.

The incision having been made through the skin and superficial fascia down to the external abdominal ring, the cord is exposed and the veins separated from the vas deferens, as shown in Figure 2. The vas deferens can easily be recognized, as on palpation it feels hard and round, and is of uniform caliber throughout the field exposed. The vas deferens should be kept away from the plexus veins by a blunt hook or a loop of gauze. (Figure 2).

Great care should be exercised to avoid injuring the vas deferens, as already stated in the previous article. The veins having been separated they are then ligated, the upper part first and then the lower part, and a sufficient section of these veins removed, as shown in Figure 3. It will be seen that

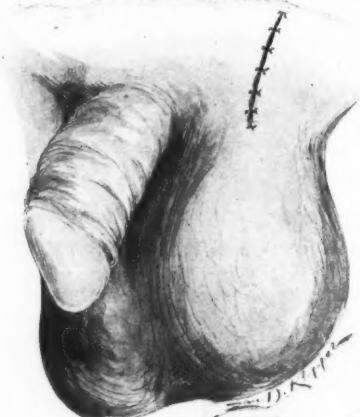


Fig. 5. The external wound is now closed.

the testicle is exposed at the lower end of the wound. The veins are then brought together, as shown in Figure 4, and the wound sutured in the usual way (Figure 5).

If the operation has been performed under strict asepsis, the wound may be sealed with collodion and a dry dressing applied.

It is much safer to do the suprapubic than the scrotal operation, since infections are not so liable to occur. Moreover, the veins are ligated higher up, where there are less branches, and therefore hematoma is less likely to follow.

The after-treatment consists in keeping the wound clean and dry and dressing it twice a week. At the end of ten days or two weeks the patient is discharged.

# Laboratory Help in Tuberculosis

*Facts with Which Every Physician Should be Familiar*

By J. FAVIL BIEHN, M. D., Chicago, Illinois

**EDITORIAL NOTE.**—Medical men are just waking up to the fact that the laboratory has something more than a purely "scientific" interest to them. The information obtained from it (and in no other way) again and again provides the key to successful treatment. For this reason particularly, Dr. Biehn's paper should be read closely and its suggestions made use of in every case of tuberculosis.

**I**N tuberculosis, especially, we must constantly bear in mind to treat the patient and not the disease. We, therefore, have constant need to utilize all the resources of science, and the laboratory, here as elsewhere, can give us assistance that can be acquired in no other way.

The demonstration of the tubercle bacillus as the cause of tuberculosis and the simple practical method of determining its presence by the examination of the sputum have led to the establishment of this method as a routine procedure by all progressive practitioners.

The tendency of the day is to examine the sputum as soon as one finds a patient presenting any of the clinical signs or symptoms of pulmonary tuberculosis. The finding of tubercle bacilli in the sputum is, necessarily, positive evidence of the disease, but, unfortunately, negative findings are of comparatively little value.

Oftentimes tubercle bacilli are demonstrable when the physical signs of the disease are ambiguous, but at other times, even in advanced cases, they cannot be demonstrated, either because there is no ulcerating focus, as in miliary tuberculosis, or because the cheesy areas are not in communication with the bronchioles.

## **Brown's Conclusions as to the Value of Laboratory Findings**

Brown, in *The Journal of the American Medical Association* (Vol. XL, 1903, page 541), sums up the value of sputum examination as follows:

1. Many of the tubercle bacilli may not be stained at all.
2. Old foci may give off very few and young foci no bacilli.

3. By the occlusion of a bronchus, the contents of a focus may be shut off entirely for a time, and so, when expelled, the sputa may contain a large number of tubercle bacilli.

4. The organisms may be present one day and not again for months.

5. The organisms may be abundant in one part of the sputum and none may be found in other parts.

6. Some patients with fatal tuberculosis (caseous pneumonia or acute miliary tuberculosis) may have no bacilli in the sputum, while in other cases the organisms are present, even before physical signs obtain.

7. In severe cases, with bronchitis, the secretion of the bronchi will dilute the sputa and give the appearance of a reduction in the number of organisms. From this it may readily be seen that too much reliance can not be placed upon the number of the bacilli in the sputum. This is usually, however, in direct ratio to the severity of the disease.

## **Additional Diagnostic Factors**

The germs of secondary infection, that is, the streptococci, pneumococci, micrococci catarrhalis, and influenza bacilli, must be considered, as they usually are the immediate cause of death, by septicemia.

The demonstration of elastic fibers in the sputum is also of importance, as they prove a disintegration of tissue by the tuberculous process, and are present in from 70 to 90 percent of all cases. They are not pathognomonic of the disease, however, as they are also found in pulmonary gangrene, abscess and infarcts of the lung.

Aside from the demonstration of tubercle bacilli in the sputum, there are numerous additional facts regarding the condition of

the patient, that are highly essential to successful treatment, and that can only be determined by a laboratory demonstration.

Tuberculosis is a general disease and affects, directly or indirectly, the entire body. We therefore expect and find disorders of metabolism, etc. These also must be taken into consideration.

#### Examination of the Urine

Although the examination of the urine will not make a diagnosis of tuberculosis, except of a renal involvement, it is of especial value; that is, not the ordinary routine examination, but a complete qualitative and quantitative examination, including physiologic tests.

In general, the urine in this disease is normal at the outset, but soon the disturbed metabolism manifests itself by changes in this, the principal excretory, product. If fever is present, the amount is diminished, the color high and the acidity increased. The acidity particularly is increased during rapid loss of flesh or breaking down of lung-tissue and is accompanied by phosphaturia, principally calcium salts. We normally find 0.2 to 0.3 Grams of calcium per day, but in tuberculosis we find up to 0.47 Gram. This gradually diminishes, however, and may disappear when cachexia supervenes.

Diacetic acid, acetone and increased ammonia excretion indicate a lack of oxygenation, etc., and show us that the blood is less alkaline and therefore possesses a lessened resisting power. This condition is very readily corrected, and with surprising results, by the administration of alkalis.

The total solids are diminished, as is also the urea. The latter varies somewhat, depending upon the appetite, general metabolism and degree of fever. The amount of uric acid is increased, while the sulphates show a slight decrease, as do also the chlorides, especially if diarrhea be present, unless a very large amount of the chlorine element is included in the diet.

Albumin is usually present, often with casts in large numbers, indicating a concomitant glomerulonephritis, which is a very frequent complication. Renal congestion, a constant condition in tuberculosis,

regularly produces a trace of albumin, a few casts and red blood-corpuscles.

Pyuria indicates a tuberculous infection of the kidneys, and the bacilli should be diligently sought for.

In examining the urine for tubercle bacilli, the best results are obtained by examining a catheter specimen. In this way we are enabled to obviate contamination with the smegma bacilli always present on the genitourinary organs.

The demonstration of tubercle bacilli in the urine is at best a very difficult matter, owing to their occurring in clumps and therefore requiring patient search, and in all cases of negative findings an animal experiment should be made.

The finding of tubercle bacilli in the urine does not necessarily indicate a genitourinary tuberculosis. Tubercle bacilli have been found in the urine in cases of miliary tuberculosis and have also been reported in cases of pulmonary tuberculosis, although it is more frequent to find them as evidences of local tuberculosis.

Ehrlich's diazo reaction is of some prognostic importance. Ehrlich claims that if this reaction is present during a considerable period of time, it denotes an early fatal termination.

#### Examination of the Feces

The usual custom of forced feeding requires, beside a careful examination of the feces for its control, frequent examination of the urine, in order to determine the presence of indican, which indicates intestinal indigestion and putrefaction. The writer has seen many patients succumb rapidly, due undoubtedly to uncontrolled forced feeding. These patients did not digest or assimilate much of the additional food ingested, and as a result putrefaction occurred, producing toxic bodies, the absorption and elimination of which placed an additional burden on the individual, which finally overpowered him.

The examination of the stools for tubercle bacilli is very rarely satisfactory, owing to the enormous number of bacteria present, many of them acid-fast and having peculiar and other staining characteristics of the tubercle bacilli. If, however, we find characteristic organisms on repeated examina-

tion, with clinical symptoms pointing to tuberculosis of the bowel, we are justified in giving a presumptive diagnosis of tuberculosis. We must not lose sight of the fact, however, that the tubercle bacilli may appear in the stools as the result of tuberculous sputum having been swallowed.

#### **The Blood in Tuberculosis**

The blood in tuberculosis does not show the changes one would expect. Although, to all appearances, the patient is very anemic, yet, a blood-count will show that there is only a slight reduction in the number of red blood-corpuscles. There is usually a greater reduction, correspondingly, in the amount of hemoglobin present, so that we have a condition of mild chlorosis. A severe anemia is more frequently associated with pulmonary tuberculosis than with any other form, unquestionably due to the extensive hemorrhages that occur. We find, however, that the regeneration of the blood is rapid, even after severe hemorrhage.

We always find a leukopenia, that is, a decrease in the number of white blood-corpuscles, unless there is a marked secondary infection. Then the leukocytes usually are slightly increased. There is always a relative increase in the number of lymphocytes, or small round cells. In a pure tuberculous infection these predominate also in the sputum. With a secondary infection of a marked type we have a predominance of the polymorphonuclear leukocytes.

In tuberculosis of the kidneys, pus cells appear early, and usually are present in considerable numbers. The pyuria is usually constant and associated with hematuria. The pus corpuscles are largely of the mononuclear type, not the ordinary polynuclears.

#### **The Spinal Fluid in Meningitis**

In tuberculous meningitis, the cerebrospinal fluid usually is clear, but may be slightly opalescent. Generally there are present an enormous number of cellular elements, mostly of the mononuclear type. Occasionally a few red blood-corpuscles may be seen. If we stain, we are practically sure of getting positive results in at least seventy percent of the cases. Failing to find tubercle bacilli in the presence of a lympho-

cytosis, an animal inoculation should be made, or the patient subjected to the tuberculin test.

#### **The Digestion**

The necessity for hyperalimentation in tuberculosis renders constant watchfulness of the digestion necessary; the capacity of the stomach to digest must be ascertained with great certainty.

There is no doubt that a careful analysis of the stomach-contents in tuberculosis, at least in the early stages of the disease, will show that the anorexia complained of by these patients is anorexia nervosa, and that the stomach produces a normal juice. However, it is absolutely essential, in order that one may scientifically and intelligently treat the case, to know exactly the condition of the digestive organs, just as it is essential to know the exact condition of all the excretory organs, so as to make certain that elimination is satisfactory.

#### **Success in Proportion to Exactitude**

If the physician pays attention to these generalities, and thoroughly knows the condition of his patient, there is no question but that he will be able to obtain better and more satisfactory results in the treatment of this disease.

The marked success of some practitioners, in the large hospitals or sanitariums, in the treatment of this disease is unquestionably due to the fact that they ascertain the exact status of the patient. They note and correct any digressions from the normal, and in this way they are able to raise the general standard of his resistance, just as the sending of the patient to a higher and dryer climate tends to eliminate a secondary infection, thereby allowing all of the patient's reconstructive forces to combat the tuberculous infection. Under these conditions, the malady is much more likely to be overcome, or at least held in abeyance.

In conclusion, I wish to state that to treat intelligently and successfully a patient who has tuberculosis (or any other disease, for that matter), the laboratory findings, no less than the clinical symptoms, must be known and carefully considered in order to obtain a complete clinical picture.

Only a few of our patients actually die of tuberculosis; they do die of some complication or intercurrent pathologic condition that usually can be foreseen, and often prevented, by a proper and complete analysis

Realizing, as everyone must, the importance of clinical findings, still, I know that these fall far short of the whole symptom-

complex, a knowledge of which is so necessary to attain satisfactory results. Unfortunately, too many of us are one-sided—we are either clinicians or laboratory workers.

To succeed, we must utilize all the resources at our command, combining both the clinical and laboratory facts, as they are equally essential.

## What Has Become of the Family Doctor?

*With Some Remarks About the Specialist*

**By W. H. PETERS, M. D., Providence, Rhode Island**

IT is a rare occurrence nowadays for one to meet with a physician of the old school, the type of man who cured all our ills instead of parceling them out to different specialists. The good old conservative family doctor, God bless him, is disappearing; even in remote towns and villages, he is becoming a rarity. At the village store we've heard him discussing the topics of the day, giving excellent advice on how to harvest grain, cure a sick horse or how to cure a man with salt rheum. Occasionally we see pictures of him in magazines, driving over country roads in a one-horse shay, or with his horse and saddle bags, on his way to give some poor sufferer relief.

Haven't you often heard your mother or your grandmother tell of the times when you were a little boy and how the good old doctor cured you of the measles with hot thorowort tea and epsom salt? And by the way, just as many cases got well then as do now, even if we do have more up-to-date medicines, and trained nurses.

All of this is changed now. We have doctors running around in high-powered automobiles to see their patients, a different doctor for almost every different disease. There may be a few of the good old family doctors left, the kind of doctors mother had when she was a girl, but this really comforting and useful genius seems to be passing into oblivion. Certainly the passing of the family doctor is a distinct misfortune to the community.

An experience some time ago in one of our large cities comes here to mind: One Mr. Smith (let us say) and an elderly gentleman, after a generous dinner went to the opera. During the performance the elderly gentleman became ill. Smith at once got his friend into a cab and drove in haste to a doctor's office, rang the bell, and was admitted with his sick friend.

"Hum—," observed the doctor after a superficial examination, "this gentleman has an embolus of the brain. I am sorry I cannot help him, as my specialty is disease of the joints. You had best go up the street where there is another doctor."

Smith bundled his poor suffering friend back into the cab, drove up street to where he again saw a doctor's sign and was again admitted.

"Hum—," said this physician, "he certainly has an embolus, but my peculiar field is stomach diseases. You had better try Brown."

This painful experience was repeated in half a dozen consultation rooms until the happy idea occurred to the last consultant to advise that the patient be taken to the Presbyterian Hospital near by. This was done.

"Yes," said the physician in charge here, "he has an embolus and we can treat him—that is, if he is a Presbyterian."

Finally, by a master stroke of genius, Smith determined upon taking him to his old family physician on a side street, who could cure anything from embolism of the





DR. GEORGE WHEATON CARR

One of the loved family physicians of Providence, R. I. He was kind and careful and his patients all loved him. He died recently.

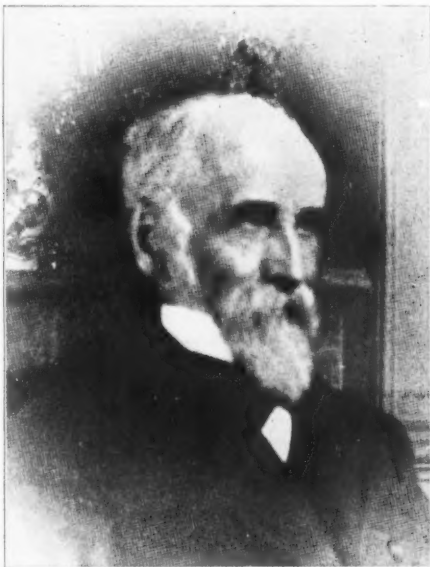
brain down to an ingrowing toe-nail; and by this means did the sufferer secure relief and soon became a well man.

#### The Evolution of the Specialist

One can of course easily understand the evolution of the specialist in medicine; he is the logical result of the vast advances which have been made in the science and art of medicine and surgery during recent years. Authentic history relates how in Egypt in the time of the Ptolomies there were many specialties in medicine, almost as many (possibly more) as we have today. A list of them is of truly astonishing length. There were men who dealt exclusively with the eye, the ear, the joints, the stomach and so on, and it was not considered good form for the joint-man to poke his speculum into the ear or for the eye-man to inquire about the stomach.

Montaigne (who lived in the time of Shakespeare) relates, with a sort of sardonic

humor, how in his day doctors were constantly inventing new diseases, which of course needed special attention by men especially trained for the work. Montaigne had a grouch on the physicians of his day, mainly for the reason that his later years were tortured by the stone which finally caused his demise. Of course Ambroise Paré, "the famous surgeon, could have relieved him, but surgery hurt in those days, which knew not ether or chloroform or lumbar puncture." So Montaigne, though "very sensible of essential and corporeal pain," was yet not a man of heroic mold and preferred enduring the stone to the knife for its eradication. "The arts," he declared,



DR. JAMES WINCHELL COLEMAN ELY

A graduate of Harvard in 1846. At the time of his death, after sixty years in the general practice of medicine, he was the dean of the profession in Rhode Island.

"that promise to keep our bodies and souls in health, promise a great deal; but withal, there is none that less keep their promise."

#### The Coming of Lawyer and Doctor

Montaigne cites the case of a small rural community which lived in a very simple and primitive fashion. "This little state had continued from all antiquity in so happy a condition that no neighboring judge was

ever put to the trouble of enquiring into their doings, no advocate ever retained to give them counsel, nor stranger ever called in to compose their differences;" nor did this happy community know what it was to be sick, having no disease, like the oyster, which is either healthy or dead.

But unfortunately for them a lawyer and a doctor came among them. The troubles the lawyer brewed will not here be considered. The physician began first of all to teach them "the names of fevers, rheums and imposthumes, the seat of the heart, liver and intestines, a science until then utterly unknown to them, and instead of garlick, with which they were wont to cure all disease, however painful or extreme, he taught them to take strange mixtures, and began to make a trade, not only of their healths, but of their lives. They swore until then they had never preceived the evening air to be offensive to the head, that to drink when they were hot was hurtful and that the winds of autumn were more unwholesome than those of the spring, that since this use of physic, they find themselves oppressed with a legion of diseases and they perceive a general decay in their wonted vigor, and their lives are shorter by half."

If one doctor could work all this havoc in a little community, what would have happened had a lot of specialists been let loose. Imagine what would have happened in that rustic community had it had (as with us nowadays) its every physical organ and member parcelled out among a number of specialists. Such is indeed the case with us in our modern twentieth century civilization. As Mr. Dooley remarks, there is "Doctor Ventricle for the heart," and "Doctor Bellows for the lungs," nor would either of them be quite so unethical as to venture upon anything below the diaphragm.

#### Why Medical Specialism Has Developed

There are several reasons for this up-to-date development in medical specialism. In the first place, almost every human calling is now specialized. Seldom does a watchmaker make a whole watch. One man makes only the main springs, another the faces or cases, and so on. Rarely will you find a shoemaker today to make you a whole

pair of shoes; one now prepares the sole, another the buttonholes, and others different parts. The law is divided up into a lot of specialties, so that plenty of technicalities may be invented for getting around the simplest principles of justice. So is also in medicine, and this on the whole is beneficial for the race.

The thing, however, that we should insist upon is that the specialist should be competent in his own specialty, that his reputation should be based upon a fair amount of preparation. The specialist should be evolved out of the general practitioner. He ought to have based his special career firmly upon a knowledge of the physiology and pathology of the *whole* body. He ought never to lose sight of the fact that his specialty is but a part of an indefinitely complex machine; he ought not, as many do, consider that in some way the human body has grown around the eye, or the ear, or the appendix, or whatever tissue he is most interested in. It is astonishing how narrow many a specialist becomes; while he is treating some special organ the patient may be dying of a disease somewhere else in the body.

#### Dermatologic Differences

An instance is recalled of a dermatologist of considerable reputation who was a wonder in diagnosing skin troubles but had to consult a hospital interne as to the proper dose of calomel for a baby with the hives. These skin specialists, by the way, have a society which meets once a year. At this annual meeting they add some hundreds of new diseases they discovered since the previous meeting, so that their nomenclature looks like a section torn out of a Greek lexicon. For all that, however, the treatment of skin diseases has not advanced beyond what it was a score of years ago. Anyway, the patient should be consoled, while scratching himself, with the knowledge that he is suffering with a malady that has a new, elegant and many-syllabled name.

#### Undertrained Specialists

Here another and much graver danger arises—it is that general practitioners, allured by the larger fees which accrue to specialists, determine upon becoming spe-

cialists themselves. To this end they visit the larger cities at some time in the year when the work is slack; the pneumonia season is closed, or the typhoids are all over with, or the summer complaints are not yet on. They really make a vacation of it and take a six-weeks' course on some subject in a postgraduate school. Now, the postgraduate school is not to be decried. When rightly attended there can hardly be a more excellent institution. If the family doctor wants an outing and takes this means of brushing up on such parts of his work as he feels the need of, it were hard to imagine how he could better employ his time. But to return home and announce himself a specialist in surgery, or gynecology, or ophthalmology, after a six-weeks' course in a hospital is a distinctly dishonest procedure and one to be condemned.

No matter what the reason, whether it be the keenness of competition in medicine, or whether the six-weeks' expert in surgery doesn't want his patient to get into the hands of more experienced men, whether a mania for cutting has him oblivious to all sense of discretion or of the just consideration due the patient, in any event, the six-weeks' specialist is surely to be avoided. To him may be applied more than to any other the saying of old Diogenes, that the physician is fortunate in his calling, since his successes are evident, while his failures are hid beneath the ground.

Such a specialist cuts when there is oftentimes no occasion to cut; to him every stomach-ache points to an appendix that has got to come out. It is he who takes the wildest chances, who does operations on his patients that he would not dream of performing on a member of his own family. The poor patient, unaware of the risk he is taking, is led like a lamb to the slaughter.

#### **The Mania for Surgical Work**

There seems to be a mania for cutting nowadays. It is becoming irresistible; embryo specialists cut down on gall-bladders to remove gallstones—and find none there to remove; the knife seeks tumors which turn out to be only phantoms; the operator goes after an appendix which he finds perfectly normal, removing it nevertheless and “sav-

ing his face” (and his fee) by explaining afterward that this tissue is of no use whatever and anyway had best come out, since it might cause trouble at any time in the future. It makes one sick to look upon this horrible work. Doesn't it make you shudder when you think of the chances the patient takes?

Now, all these observations seem to emphasize the merits of and the need for the good old family doctor. It would be a great mistake if he were permitted to die out entirely. If he were to go pretty much everybody else would die with him—and that prematurely too. He ought to be revived and put again upon his good old-time pedestal. He deserves it. He knows one thing about the patient he serves that is more important for the latter than all the knowledge of a hundred specialists: he knows the patient's constitution, his peculiarities and his environment. He has probably been the first to welcome the patient into the world of misery and of compensating joys. This doctor has seen that patient through summer complaints, the mumps, the measles; has seen him through the green-apple stage of existence. He has made the world less miserable for that patient and has no doubt done much to increase the sum of his happiness.

The family doctor is often able to say with truth: “I treat the patient and let the disease die.” On the other hand, the specialist has not infrequently had to admit: “I treat the disease and let the patient die.” Another point is this, the experienced family doctor knows what he can do and just what he can not do. What he can do there is no occasion for any one to do in his stead at much higher rates. What he can not do (and this is no discredit to him) he frankly advises should receive the specialist's attention, at least for consultation, and he is more likely to seek a specialist for his ability and not his fees.

#### **The General Practitioner Can Do a Larger Percentage of Work**

The general practitioner can do very well nine-tenths of the work that is done in the various specialties—and why shouldn't he? Hasn't he spent thousands of dollars to

learn, and given ten or a dozen years in his life to study? It is not honoring the most helpful man and the best and most devoted friend in all human experience to put him in the place of the middleman between the patient and the specialist. It is the sensible experienced family doctor who knows how to put things in their right proportion, who doesn't consider every stomach-ache an appendicitis, every headache a meningitis, every cough a tuberculosis, every swelling a cancer; who doesn't have to find his profit in "scare-heads," who has the most sympathy for you, who comforts you during your last hours. It is he, also, who is always on the watch for a true appendicitis, meningitis, tuberculosis or cancer. Such a family doctor is an adviser to be trusted; one who can be depended upon to tell his patient the truth about his ailments. Whenever he operates it is for a reason and the idea of increasing his income is no part of that reason.

The safest man among doctors to consult when you are ill is the good old family doctor. Long may he be with us!

[Dr. Peters has assuredly given us a witty presentation of the relative merits of the family doctor and the specialist; but, really, he has not done the latter justice. When we stop to think of it, there isn't one

of us who will not admit that it is impossible for any man to acquire and assimilate, much less apply, all available knowledge concerning even one portion of the human body. The additions which are being made yearly are simply astounding; even medical editors can not keep up with them! Under the circumstances it becomes absolutely impossible for the general practitioner to treat with success many regional ailments demanding for their mastery, knowledge, and skill such as are acquired only by long study and experience.

What the general practitioner can not do *well* he should not attempt to do at all, providing another and more skilful man is available. The world needs the specialist—that is the reason he is so much in evidence; and the world should certainly be grateful to him for much fine, scientific work and for thousands of lives saved. The specialist and family doctor ought to work side by side and in perfect harmony; and the remuneration of the latter should be just as generous (since his responsibility and his learning should be just as great) as that of the former.

All Dr. Peters' condemnation of the *pseudo* specialist (whether of the six-weeks' variety or not) we heartily indorse; and we agree with him that the general practitioner does not get the honor (nor the pay) that are his deserts.—E.D.]

## "The Chutmuck"

By GEORGE F. BUTLER, A. M., M. D., Chicago, Illinois

IT had been a busy day for The Chutmuck. It was eight o'clock in the evening, and he had yet one more call to make before going to the Chutmuck's banquet where he was to respond to the toast, "The Bachelor and What He's Missed." Driving rapidly into a poor district of the city, he stopped in front of a modest flat and entered the building. A woman, pale but beautiful, apparently about thirty-three years of age, admitted him into a meagerly furnished parlor where another physician was waiting.

"How long has he been sick?" asked The Chutmuck.

"Three days," replied the Attending Physician.

"You are sure he has appendicitis?"

"Yes, quite sure."

"Well, let's look him over," And they went back to a small bedroom at the end of the dimly lighted hall.

"How are you, George?" said The Chutmuck.

"Up against it, I reckon," replied George, as he extended his hand, which was apparently unnoticed by The Chutmuck, as at that moment he turned to speak to the Attending Physician.

After the examination, which disclosed the fact that the patient was suffering from appendicitis, the two doctors and The Woman returned to the front room.

"You'd better have Henkins operate at once," said The Chutmuck.

"But I want *you*," said the Woman. Then The Chutmuck took her one side, and they talked earnestly for a few minutes. But The Woman prevailed, and The Chutmuck requested the Attending Physician to have the patient removed to the hospital and prepared for an operation at midnight.

\* \* \*

It was the Chutmuck's night. For four days the brainiest men in the medical profession had met in serious discussion at the annual meeting of the American Medical Association. But this night the Chutmucks, as they called themselves, an organization of fifty or more convivial doctors, had assembled, as was their custom at each annual meeting of the A. M. A., to forget for a while the tragedies of life in frivolity and fun.

The Grand High Mufti, who acted as Toastmaster, was at his best. He had introduced several of the speakers of the evening in his usual happy manner.

"I have the pleasure now," said he, "of calling upon a real live bachelor Chutmuck, though he is old enough to be a bald-headed father. He is now passing through a serious epoch of his life," and turning to The Chutmuck he continued: "Now, at this critical period of your life, let us hope that you have in their completeness all the qualities of the Chutmuck. And what are the essentials of the true, the real Chutmuck? Why, the four B's, of course.

"The first B, the brains in good form, that direct him.

"The second B, the backbone, rigid, firm and unmovable, that controls him.

"The third B, the blood, in which the red blood-corpuscles, properly, largely exceed the white, full-charged with rich, red hemoglobin.

"The fourth B, the beauty, not the beauty of face, form and figure, which cuts no ice and availeth little, but the beauty of character, which attracts friends, holds them, and loves to serve them.

"The true Chutmuck is a lover—or should be one. Rarely do we find a

confirmed bachelor Chutmuck. Our bachelor member, it seems to me, must be shy on one or more of the four B's. He may never have experienced the perilous happiness of being in love. Speaking of the danger and ecstasy of love, let us all drink to this toast of Love, before listening to our friend telling what bets he's overlooked.

"Drink to thine eyes, brighter than stars,  
Glowing with fire burning in Mars.  
Drink to the lips of rare delight—  
To the rippling laughter that gladdens the night.  
Drink to the tresses of burnished hair  
That float like mist on the slumberous air.  
Drink to the arms that clasp you tight  
And thrill your being with sweet delight.  
Then again to the lips, sweet with nectar, drink,  
And lose your soul o'er the perilous brink;  
Let the topaz and ruby blend in a flame  
And touch to your lips while you breathe the one name,  
Then steep your senses in the magic spell  
That makes Love's Paradise the crest of Hell.

"And now," continued the Grand High Mufti, "we will listen to our bachelor friend, who, like a truthful Chutmuck, will tell us what he's missed. I call on him this early in the game, as he assures me that he has an important operation to perform at midnight."

The Chutmuck rose and was greeted with vociferous yells. Puffing a huge volume of smoke into the cloud-laden air, he placed his cigar on the table and soberly and seriously looked into the faces of that boisterous, laughing crowd of doctors. The hilarity quickly subsided, and the great hall was as still as if he were about to discuss the most important medical topic of the day.

"Gentlemen, although I am a bachelor, I have not missed Love's Paradise," he said, "for I have stumbled and tottered on the crest of Hell, and have been stifled and strangled with its sulphurous fumes until I have longed to pitch headlong into its black, unfathomable depths, if, by so doing, I could gain oblivion. Yes, I have tasted both Paradise and Hell, but what have I missed?

"I have missed a wife's kindly glance and speech of loving encouragement that nerve and sustain the physician in his noble endeavor. I have missed her infinite comfort in moments of desperate encounter with fate, so that my early years of privation and study have at times seemed a thankless sacrifice and ambition, but a luring delusion of irony. And now that fortune and fame have smiled upon me, I have missed the joy of knowing



there is someone to be gladdened by my laurels, someone to share my pride and sweeten the consciousness of honorable achievement.

"On the other hand, had I failed, I could not have known when the steep had been laboriously climbed, and, in place of an enchanting landscape, only the desert of disappointment lay before my bewildered vision; when the blight of mediocrity had withered the fair flower of hope, I could not have known how tenderly precious it would be to feel that there was one to cross with me that barren waste, hand in hand and heart to heart; to take courage with me at sight of the charming oasis that rose like a castle in the air, in unattainable mirage, and long with me to quench the thirst of years beneath its spreading palms. And when the mighty shadow of the unseen casts the penumbra of its dread eclipse upon the days that are departing, and I, who have watched many a fellow mortal pass within the solemn portals, must myself answer the summons of the recording angel's voice—I shall not enjoy the happy calm of an abiding affection, endeared by the most sacred earthly bonds, which shall be, as it were, my passport to heaven."

The Chutmuck's face was a study. His words were unmistakably extemporaneous. He came from Kentucky, where one can still detect in the fervid declamation of her gifted sons some resonances of Henry Clay and Tom Marshall. Pausing a moment, he again launched forth into an eloquent improvisation of marvelous volubility that rose and fell with beautiful periods and held his listeners spellbound.

"Missed! Let me tell you. I have been denied the sweet privilege of whispering into the listening ears of a loving wife—ears that would not tire of listening because it would be I who whispered—the vagaries and fancies, the glowing thoughts and ambitions that come to me from time to time. I have missed a home, with a sweet-faced creature by my side, there, because she would love to be there. I have missed the sweet prattle of loving children and the tender touch of their soft, pink arms around my neck. I have missed being welcomed by a winsome creature who would call me "Papa," and

who would have eyes and hair and smiles so like her mother's.

"I sometimes think God's ban is on me for:

'All blessings which enrich the lives of men  
Dissolve from me like phantoms. Kith or kin,  
Wife, child, nor anyone to love me when  
I cry out from the coils of pain wherein  
My breath is strangled, have I; no, nor then,  
When the worst devils tempt me, can I win  
One pitying gleam from the stern heavens, which  
fling,

My prayer back to me as a leprous thing!'"

Then looking at his watch, he added: "I beg you to excuse me, gentlemen, I have barely time to reach the hospital. Good-night."

With these words The Chutmuck abruptly finished his speech and quickly left the room. It was raining heavily, but he plainly heard the applause from the banquet hall as he was rapidly driven away.

\* \* \*

It was just midnight when The Chutmuck stepped into the hospital.

The patient was being anesthetized in an adjoining room when he entered the operating room, but was soon wheeled into his presence ready for the operation. A Pugnosed Nurse remained at the head of the patient, giving the anesthetic. Stepping to the patient's side, The Chutmuck turned to a Nurse of Uncertain Age behind him at the instrument table, saying curtly

"Scalpel!"

The knife was handed him, and by a swift, steady stroke, it sank quickly through the skin over the abscess. The blood from a small artery spurted unheeded upon his arm. The Interne seized the vessel with the forceps. The Chutmuck then proceeded cautiously to divide the succeeding layers of muscle till he had almost reached the peritoneum. Here the tissues became soft and edematous and the surgeon's keen touch warned him that he was almost upon the abscess. He was carefully dissecting his way through this tissue, when The Interne was startled by an almost imperceptible gasp from The Chutmuck, and, glancing quickly up he saw his eyes fiercely fixed upon the patient's abdomen. His chest heaved with quick, deep breaths, and an expression came upon his face that caused The Interne to start and nearly drop the instrument he was holding.

The Chutmuck grasped his knife firmly, and, to the Interne's intense astonishment, with a single stroke slashed through the tissues into the peritoneal cavity. A jet of putrid pus gushed through the opening. The Chutmuck thrust his fingers into the wound, but at this instant he seemed suddenly to restrain himself, and stood for a moment motionless, his eyes staring, his jaws firmly set, his every muscle tense. It was only for a moment, but The Chutmuck lived a lifetime in those few seconds. He saw his patient dead and buried. He heard men say: "Poor George! He died of appendicitis. But, then, he's better dead than alive, perhaps; he was no good anyway, and his wife will be better off without him."

Then other thoughts surged through his brain. He thought he was realizing what only an hour before he had told his medical friends he had missed. He was now whispering into the listening ears of his loving wife his vagaries and fancies, his glowing thoughts and ambitions. He felt her breath grow warmer and warmer as her kisses fell upon his hair and eyes and lips. He felt the joy of living in a close, clinging embrace, to the full knowledge of bliss. He felt the soft arms of children about his neck, and then, suddenly, as if by a fearful effort, he violently jerked his hand from the wound with such force as to hit and knock the retractor from the hand of the Junior Interne. The fall of the instrument seemed to startle him, and he blurted out:

"Damn it, a sponge!" He took the square of gauze, then added, in his usual calm voice:

"My face, please, nurse." And the Nurse of Uncertain Age gently wiped away the great drops of sweat from his brow.

After a few moments the appendix was found. It was lifted up into the wound, ligated and cut off.

The cavity was carefully sponged dry and all bleeding stopped. A few sutures were then put in, partially closing the wound, a small gauze drain being left in.

The Assisting Internes stood wondering by as The Chutmuck put on the dressings and applied the bandage himself, an unusual thing for him to do; felt of the patient's pulse, observed his color, and the character of the respirations, then quietly said as he left the room:

"He is in good shape. Put him to bed and watch him carefully."

"The old man is cranky to-night," remarked the Junior Interne.

"He has these spells every now and then," said the Senior Interne.

"I've heard he was disappointed in love once," said the Pug-Nosed Nurse.

"That's true, I guess," replied the Nurse of Uncertain Age. "They say she married another man who wasn't much account."

\* \* \*

As The Chutmuck entered the dimly lighted reception room on the ground floor of the hospital, a woman from a remote corner of the room hastened to meet him.

She clasped both his hands, and they stood there silently, looking into each other's eyes.

The storm raged furiously outside; the rain beat in torrents against the windows. The wind shrieked and moaned like a lost soul. The clang of the patrol, and the clash of the wheels on the street-car tracks were heard for a moment above the roar of the tempest.

In a voice of suppressed emotion, The Woman asked:

"Was the operation successful?"

He felt a sudden spasm of her hands as he answered,

"Yes."

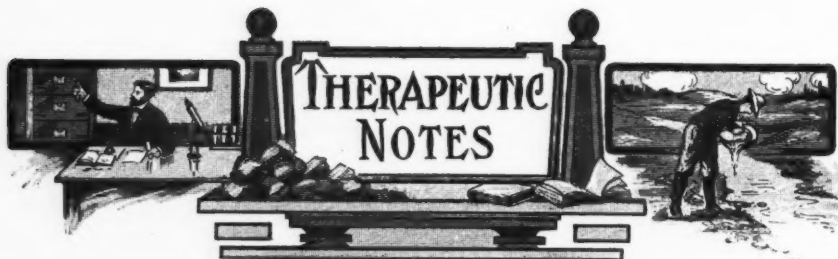
"Will he live?" she inquired.

"I think he will."

"Oh, My God," said The Woman, and she sank into a chair and buried her face in her hands.

The Chutmuck stood still. Then a look of unutterable tenderness came into his eyes, and he went out into the night.





### ERGOTOXINE AND ERGOTININE

Recent investigations of ergot have shown that Kobert's cornutine is a decomposition product and does not exist as such in fresh ergot.

The activity of this drug is now believed to be due to a powerful amorphous alkaloid named ergotoxine, and another crystalline one named ergotinine, both freely soluble in alcohol. These substances are closely related chemically and easily interconvertible.

Ergotoxine is very much more powerful. It produces ataxia, dyspnea, salivation, gastrointestinal irritation and peripheral gangrene. It stimulates plane-muscular organs, especially the arteries and the uterus, and later produces a peculiar vasomotor reversal and a similar condition of the uterus. This means the alteration of the mechanism so that these organs respond to adrenalin in a manner opposite to that ordinarily observed. Adrenalin usually causes vascular and uterine contraction, but after large doses of ergotoxine it causes relaxation.

Ergotoxine causes tonic contraction of the pregnant uterus, the fetus expelled usually being dead, or it may be asphyxiated without being expelled. The continued use of ergotoxine develops tolerance.

### THE VARIABILITY OF DIGITALIS AND ITS PREPARATIONS

*The Therapeutic Gazette* for December 15, 1910, quotes Pratt's article in *The Boston Medical and Surgical Journal* for August 18, in which attention is called to the variability in the strength of the digitalis preparations. He says that "not unfrequently large doses of the tincture can be given without produc-

ing any material effect, because it is almost inert." Tests made upon frogs and human beings with some of the leaves sold by jobbers of high reputation proved them to be almost inert, while some of the other samples were decidedly active.

As digitalis is a drug which is used largely in desperately critical conditions, Dr. Pratt properly emphasizes the necessity of employing good preparations which can be depended upon to give results. A life may be lost because the drug used is inert—a life which might have been saved if the remedy used had been a good one.

### NUCLEIN VALUABLE IN CHOLERA

A. G. Pissarev reports in *Semaine Médicale* (abstr. in *The Prescriber*, Dec., 1910) a number of cases of cholera, which he treated by injection of sodium nucleate, 5, 8 or 10 per cent in normal salt solution, together with nuclein internally in 2 1-2 grain doses. The injections were given once or twice, and the nucleic acid three or four times daily. Only three deaths occurred in eleven grave cases. The other measures usual in the treatment of cholera were not neglected.

### ABORTION OF SYPHILIS

In the excitement following the introduction of "606," Hallopeau's proposition, to abort syphilis by a month's treatment, seems to have fallen unnoticed. He makes a daily injection into or near the chancre, besides a daily injection of mercury benzoate into the gluteal muscles, and the administration of potassium iodide, 15 to 30 grains daily. The injection he employs consists of hectin, sodium benzosulphoneparamene-

phenylarsenate), 20 centigrams in 2 Grams of distilled water.

Mariotti secured equally good results from daily injections of mercury oxycyanide, 1-20 grain. De Aragao employed atoxyl and arsacetin in 127 cases, with similar good effect. Bouquet (*Le Monde Médical*) says, the only criticism is that the method has not been subjected to the test of time. While awaiting the coming of "606," we may avail ourselves of these suggestions.

#### OPERATIVE TREATMENT OF HEMORRHOIDS

The following detailed directions for the operative removal of piles are reproduced *in extenso* from an article in *The Medical Summary* for July, 1910, by Dr. E. S. Harris. This procedure he calls "ideal" for ordinary cases.

The parts are washed clean, after having the patient go to stool, and each external tumor is injected with a 2-percent solution of cocaine. The needle should be introduced quickly and at the base of the tumor and sufficient solution injected to make it stand out prominently. When the drug has had sufficient effect, so that the patient does not feel the prick of the needle at the apex of the tumor, he is ready for the "great ordeal."

With any suitable forceps, the tumors, each in turn, are picked up and, with curved scissors, an ellipse is taken from each, commensurate with the size of the tumor, the idea being to get about two-thirds or three-quarters of the hypertrophied tissue. This is sufficient to destroy the circulation and not enough to cause stricture. Care should be taken that the incision is made parallel to the rectum and that a little membrane is left between each point of operation. The bleeding is easily controlled by pressure and peroxide of hydrogen.

If the tumors are not too much inflamed, you may first introduce a speculum and see if there are any above the sphincter-muscle. These may be left or taken off at the first sitting, just as the operator thinks best. If I can get to them with little difficulty, and they are large, I remove them, otherwise I leave them till the stumps lower down are

well. The small tumors will usually go away and are there as a result of the irritation of the larger ones. When in doubt as to whether one should be taken off, leave it, and if it remains after the irritation has subsided, it may be removed with any others that may seem capable of giving future trouble. In this way you will be able to do just what is necessary, and no more.

The parts are now dusted with some soothing powder and a dry gauze dressing applied and held in place with a tight-fitting T-bandage. The bowels should not be encouraged to move for forty-eight hours, but likely will give little pain if they should. After a defecation the parts should be cleaned again and dressed as before. The membrane soon heals by granulation. The patient will be very grateful.

#### INFANT FEEDING AND SLEEP

A. W. Myers writes, in *Gaillard's Southern Medicine* for August, 1910 (p. 251) as follows, on the subject of the title:

"As to the question of awakening the child at regular intervals for feedings, each individual case must be decided on its merits, but it seems to me that the results of letting the child sleep as long as it wants to have been so satisfactory that I should hesitate to change. There are some children who show a tendency to turn night into day by sleeping for long periods during the day and waking frequently at night. In cases of this type it is well to rouse the child regularly for its feeding during the day in order to try to secure the longer period of sleep during the night, but in ordinary cases there seems to be an unusual freedom from digestive disturbances when the child is allowed to sleep as long as it will, and even when the number of nursings is reduced to four or five in the twenty-four hours the gain in weight is normal."

#### BENZIN FOR STERILIZING THE SKIN BEFORE OPERATION

Zatei (*Gazz. deg. Osped.*, through *Brit. Med. Journ.*) has discarded iodine in the preoperative sterilization of the skin, owing to its occasional irritating properties. In

its place he has tried ordinary petrol (kerosene?) and benzin, and after an experience of over 700 operations he is convinced that the use of these liquids is entirely satisfactory for the purpose.

The parts are shaved the night before, if necessary, and no other special treatment is given until immediately before operation, when a good-sized piece of wool is dipped in ordinary petrol and the part lightly rubbed for about a minute. The swab is thrown into the fire and a fresh one dipped in purified benzin, and also rubbed over the part. The skin is not irritated thereby, and it is left slightly oily, which prevents staining by blood, and renders it easier to cleanse the patient after operation.

At first Dr. Zatei tried his method in minor operations, but finding it successful, he has used it in all his operations, including 195 radical operations for hernia, and 54 laparotomies. He says it is quite as effectual as the older and more drastic methods, and possesses this additional merit, that the petrol and benzin are cheap and nearly always at hand.

#### DRUG ERUPTIONS

Inasmuch as various drugs produce a characteristic eruption, this fact should always be borne in mind by the physician, so that he may not mistake them for disease-lesions. The following list has been compiled for *The Medical Summary*:

Bromide of potassium produces papules, pustules, ulcers, ecchymoses, pemphigus. Chloral produces erythema, itching, desquamation, eczema, petechia. Copaiba and cubebs produce pemphigus, erythema, eczema. Aconite produces vesicular exanthemata. Arsenic produces erythema, papules, vesicles, sometimes pustules. Iodide of potassium produces about the same as arsenic, but more marked. Mercury produces erythema, eczema. Morphine produces erythema, papular eruption, sometimes desquamation. Phosphorus produces purpura. Quinine produces erythema, eczema, hemorrhagic purpura, pemphigus, and sometimes a typical urticaria with dyspnea. Rhus toxicodendron produces vesicles, pruritus, redness and swelling of the skin.

Salicylic acid produces purpura, pemphigus, vesicular angina. Santonin produces vesicles, pemphigus. Belladonna, strychnine and stramonium may produce about the same skin manifestations as quinine; while turpentine gives rise to an eruption like that from copaiba.

A number of foods may produce an eruption in individuals having an idiosyncrasy against them. Thus, acid fruits may cause an acute eczema. Strawberries may produce urticaria. Apples sometimes produce an acneiform efflorescence about the mouth. Walnuts cause inflammation of the buccal mucous membrane. Shellfish and salt meats cause a hive-like eruption.

#### LIME WATER INTERNALLY FOR RECURRENT WARTS

A year ago a young lady who had been suffering for three years with warts on the hands came to Dudley Kennard, honorary surgeon of the Westminster General Hospital, London, for treatment. The condition was that known as verruca plana, and there were at least 300 to 400 warts on the back of each hand and wrist, but none on the face or any other part of the body.

Dr. Kennard, who describes this case in *The British Medical Journal* (cited in *Merck's Arch.*, July, 1910), ordered calcium chloride internally, but, as this had no effect, calcium iodide and liquor arsenicalis were tried, while at the same time various preparations were used locally. Then the author did not see the patient for a few months, but when she returned conditions were unchanged. He then tried cauterizing the warts with dilute solution of mercuric nitrate. After several applications the warts cauterized disappeared, and the patient began to cauterize the warts herself. Some of the caustic got on to the healthy epidermis and edema of the hands developed, which subsided in a day or two under local applications.

Being dissatisfied with the lack of progress, he now sent the patient to an eminent skin specialist. She was under the specialist's care for four months, and he tried various modes of treatment: magnesium sulphate internally, liquor carbonis detergens in alco-



hol locally, and x-rays; all these having failed, he resorted to scraping each wart and applying pure carbolic acid. This had the desired effect on the wart treated; but during this time fresh crops appeared, and the patient came back to Dr. Kennard, in October, quite discouraged.

As local treatment appeared useless, since crops of warts kept appearing, the doctor fell back on an old remedy, and ordered her to consume half a pint of lime water a day. In the course of four days all the warts disappeared, and since then (two months) no fresh outbreak has occurred.

#### THE SERIOUS NATURE OF MUMPS: A WARNING

Dr. Sidney J. Meyers of Louisville, Kentucky, read an important paper on parotitis before the Medico-Chirurgical Society, which is published in *The Louisville Monthly Journal of Medicine and Surgery* for July, 1910. The doctor points out that mumps, or epidemic parotitis, is undoubtedly an infectious disease, caused by a microorganism, not as yet isolated, which by its own presence or by the toxins it produces, or by both, gives rise to disease. A foreign material is sent through the blood stream or lymph-channels, and therefore mumps is something more than the mere local manifestation of an enlarged parotid gland. While it is generally a mild infectious disease, sometimes complications arise, placing a rather grave aspect on our cases.

Dr. Meyers then describes several cases in which severe fever and illness were produced by toxemia and in which the entire organism of the patient was seriously affected.

In the discussion, Dr. A. M. Vance voiced the opinion that many of the atrophied ovaries we meet with are due to the "going down" of mumps, just as it goes to the testicle in the male. Time and again he has quizzed the family in such cases and has frequently found a clear history of mumps in babyhood or childhood.

It is very important that we should impress the parents of our little patients with the grave possibilities of this disease, which all too often is referred to as "just mumps,"

and is, as Dr. Meyers points out, very often treated "over the phone, or in the office without seeing the patient." Such a haphazard and slipshod practice is little short of criminal and is, in the event of complications, first of all resented by the parents, although they may have been adverse to calling the doctor and incurring any expenses on a case of "just mumps."

Being due to bacterial infection, parotitis is capable of producing severe intoxication and metastasis to distant parts. These should be prevented by the usual methods of cleaning out and keeping clean, and by full doses of calcium sulphide to saturation. Nuclein in large doses (20 drops twice daily on an empty stomach) will assist the body in combating the infection. Locally the greatest cleanliness is required, especially in the oral cavity, lest the infection extend into the eustachian tube or in other directions. It goes without saying that patients ill with mumps should be isolated, because it is utterly foolish to let other children take the disease so as "to have it over with, as the saying is."

#### SCARLET-RED (EPIDERMAL) AS A STIM- ULANT OF EPITHELIAL AND EPI- DERMAL PROLIFERATION

P. F. Grossmann (reviewed in *Therap. Monatsh.*, Aug., 1910), states that Fischer was the first to show, by animal experiments, that the fatty coloring substance known as scarlet-red, or amidoazotoluol-azobetanaphthol (amidoazotoluol, for short, with epidermal as its trivial name) stimulates the epithelium to a rapid and atypical growth. Grossmann has used scarlet-red ointment or a gauze with good results in several instances, and has thereby obtained, he claims, effective stimulation of epidermic growth.

Since often fatty applications are undesirable, Grossmann in such cases employs a gauze impregnated with a 4-percent alcoholic solution of scarlet-red, calling this epidermal gauze. While he employs and recommends the gauze for operations in the ear, it would seem that it is applicable in all surgical conditions where a stimulation of new epidermis is desirable.

It should be added that in the discussion of the Berlin Otolological Society, before which Grossmann made his report, the remedy was not judged in an equally favorable light, in fact, opinions expressed by some were distinctly unfavorable.

#### SCARLET-RED IN OPHTHALMIC PRACTICE

Genty directs attention, in *La Clinique* (cited in *N. Y. Med. Jour.*, Sept. 3, 1910), to the advantages of scarlet-red as a non-irritating inodorous application in certain eye affections, its use being especially indicated when a rapid proliferation of epithelium is desired. Applied as an ointment, in the strength of 1 percent, it is less irritating than the mercurial ointments ordinarily employed in suppurative infective conditions of the cornea, although its action is less powerful. It appears to be especially effective in the treatment of inflammation of the eyelids and of corneal ulcers, whether of traumatic or spontaneous origin.

The following formula has been found to give the best satisfaction:

Scarlet-red .....	grs. 3
Woolfat .....	drs. 5
Petrolatum .....	drs. 4

This is applied to the eye twice daily in the same way and in the same amount as ointment of mercuric oxide.

Members of our staff have done some experimental work with scarlet-red ointment in the treatment of ulcers, but have not found it entirely satisfactory on account of the irritation produced, this sometimes being extreme.

#### THE INFLUENCE OF DRUGS UPON PHAGOCYTOSIS

In *The London Lancet* (quoted in *Ther. Gaz.*, Aug., 1910), Dr. Reynolds, of the British Army, reports some experiments upon the influence of opium and morphine on phagocytes, and quotes work in this direction by Cantacuzene as early as 1898. This latter investigator found that opium inhibited the out-wandering of white cells and that it seemed distinctly to enfeeble these

bodies, so that when they surrounded cholera microorganisms they fell victims to the invader instead of being successful destroyers of the pathogenic microorganisms, in the struggle for supremacy.

As to his own experiments (which were really too few in number), morphine very distinctly diminishes phagocytic activity, the white cells which contain organisms numbering only 89 in the presence of morphine, as compared to 168 in its absence; this being in the case of one cavey. In the case of a dog the leukocytes that contained microorganisms before morphine numbered 123; half an hour after morphine was given, there were only 64; and one and one-half hours afterward only 29. Reynold's conclusions are that morphine, in the presence of acute infectious processes, not only does harm in that it masks the symptoms and locks up the bowels but also by diminishing one of the important means by which the system successfully combats invading hostile microorganisms.

#### DIGITALIS AND HYPERTROPHY OF THE HEART

In experimental tests on rabbits and dogs made by Caro of Berlin (noticed in *Wien. Med. Woch.*, 1910, col. 2647), the author found that by extended digitalis dosing of experimental animals a hypertrophy of the heart is produced in comparison to the findings in control-animals, which had been selected as much alike as possible. This hypertrophy must be considered as a consequence of the increased work of the heart due to digitalis and may be taken to correspond to the strengthening of a muscle by training. It is thus to be taken as something useful.

The effect of digitalis is an elective one and affects only the heart-muscles. No alterations were found in the vessel-walls. The author did not observe cumulative symptoms, in spite of the relative long duration of the experiment. These experiments may possibly speak in favor of a prophylactic digitalis treatment (as suggested by Cloetta) for a congenitally weak heart; also of a recent endocarditis or of a commencing valvular lesion.



## Antispasmodic Action of Hyoscyamine in a Cataract Operation

**A** LADY, sixty years of age, robust and very healthy, was afflicted with an old and hard cataract, and the physician was ready to operate on it after preparing the patient with aconitine and a laxative saline, and the iris with atropine. He intended to make a keratotomy of the lower half of the cornea. The patient felt herself quite courageous, and so did the physician. But when the former fixed her eye there was at once a spasmodic twitching of the globe of the eye, which neither the patient, the tenaculum nor a Barnard's lance could restrain. The operator was about to give up the operation for the time, when it occurred to him to try hyoscyamine. After administering a few granules, at short intervals, he found he could begin the operation.

The section of the cornea was well done, but the aqueous humor having escaped badly, the iris contracted at once and completely. Was it the sudden contact with the crystalline lens that did this?

The operator ordered the patient to lie down and remain quiet for half an hour, during which time he used atropine without effect. He intended to make an iridectomy, to finish the operation, then he thought of hyoscyamine for the second time. After its use the pupils dilated, the lens stood out majestically, and after this the capsule was opened.

The assistant who saw the operation was stupefied. The bandage was placed as usual and the operator directed that aconitine and digitalin be taken. Two days

later the patient received effervescent magnesium sulphate. There was no fever following the operation, but some slight pain the first day and a definite keratoconjunctivitis. The corneal wound cicatrized very well and soon. At the end of eight days the bandage was removed, as unnecessary and inconvenient, and the treatment was reduced to dark light and to laxative salines.

On the twentieth day the ex-blind lady enjoyed her sight perfectly and called the doctor's attention to the flowers that were placed on the window before her face.—By DR. HENRIQUE CABALDON, slightly altered from *Repertoire Universel de Médecine Dosimétrique*, Vol. X, p. 148.

### TETANUS CURED BY LOCAL ANTISEPTIC TREATMENT

Under the above title M. Poucel presented his observation of a case to the Société de Chirurgie de Marseilles, which made him skeptical toward preventive serotherapy and convinced him of the prophylactic importance of local disinfection of suspected wounds, notions which have gained great credence at present.

The case was that of a patient who had his right tendo Achillis cut by a mowing machine. The wound was sutured after being antiseptically treated, and united by first intention; but nineteen days after the accident the first symptoms of tetanus made their appearance. Then antitetanic serum was injected daily during twenty-one days consecutively.

Dr. Poucel did not see the patient till forty-one days after the initial accident. The patient's condition was then quite serious: Temperature  $40.4^{\circ}$  C. ( $104.72^{\circ}$  F.), pulse 140, and intellect befogged. He opened and freshened the wound by cutting away all recent tissue formation and eradicated with the thermocautery all extraneous substance. He then injected six Grams (one and a half drams) of Van Swieten's solution (corrosive sublimate 1 : 1000 without alcohol), at a depth of three centimeters (3 2-5 inches) under the cauterized zone. The condition of the patient, which seemed worse the next day, became rapidly better thirty hours after the intervention. His temperature fell suddenly and the patient recovered his health with a rapidity surprising both to him and the doctor.

The author feels certain that the nature of the affection was evident and that with the opinion of three consulting physicians he thinks that the serum which had been injected in this case contributed nothing to its cure; that the local treatment, and especially the corrosive-sublimate injection, killed the germs, and, finally, that the tetanus toxins had been oxidized by the electrocautery.

Imbert is of the opinion that antitetanus serum has no curative value at all, and for some years past the tendency has been to doubt its value after the disease has developed. He thinks, however, that this serum is indicated in suspicious traumatic cases, but it should be employed within twenty-four hours after the injury.—*La Province Médicale*, 1910, p. 19.

#### A MOUTH COOLER

Dr. Max Robitschek, former assistant physician at the General Hospital of Vienna, Austria, writes as follows in the *Wiener Medizinische Wochenschrift*, 1910, No. 19:

On the occasion of a typhoid fever, which I had to go through in 1907, I experienced in my own body the torturing syndrome of dry mouth, which is apt to occur in a patient suffering from a high fever. I found out how powerless our therapy is in the presence of this sensation of heat in the buccal mucosa with the dry tongue. Neither

brushing with glycerin (disgusting with its sweetish taste) nor pieces of ice, nor cleansing the mouth with a menthol-perhydrol mouth wash, nor a decoction of althea root is able to give relief for even a few minutes after their immediate use. The same may be said of gargles with ice-cold mineral or soda water, which is the best-tasting of all the other remedies. What severely sick patient has strength enough to sit up and gargle continually and then spit it out into some vessel? With what exhaustion he sinks back upon his pillows, only to attempt again, by the nurse's aid, to relieve himself with the cooling liquid from the wretched sensation in his mouth.

Thus I suffered and thus suffer many other patients, though not all, and not all as intensely in every sickness; but almost always where there is an abnormally high temperature, and most so in infectious diseases, such as sepsis, typhoid fever and tuberculosis, also in poisoning, and after operations under narcosis.

I believe, therefore, that a mouth cooler which I have devised fills a need in the therapy at the bedside, and so its construction will be described here.

The instrument consists of a flattened tube of hard glass bent upon itself and shaped so as to follow the outline of the tongue and provided with a handle. The two open ends are shaped for the easy and safe attachment of soft-rubber tubes, the one tube to be attached with one end to one end of the instrument and with its other end to a water-reservoir, and the other soft-rubber tube is attached to the other end of the instrument, and its other end left to empty the flowing water into a vessel on the floor. The water is to be kept at a temperature of  $50^{\circ}$  F. [Various improvements in the bending of the ends of the glass tube will suggest themselves. So, too, the connection of the rubber tube with suitable vessel as a reservoir by means of a glass siphon; a rubber bulb being inserted in the rubber tube to start the stream would be another improvement.]

The hard glass is best for the tube on the score of cleanliness and absence of taste in the mouth. An attempt to crush it with the teeth resulted negatively. It can be made of course of any metal, and nickel plated.

It is made of two sizes, suitable for adults and children.

The instrument should be sterilized by boiling before being put into the mouth, which the patient is left to do himself, and his attention should be called to the fact that the contrivance will not only cool his tongue, lips and palate, but the mucosa of the cheeks also.

The mouth cooler can be kept in place if necessary by means of tapes tied to either limb of the instrument, the free ends being pinned to the pillow with a safety pin. The attempt to fix the mouth cooler in place by fastening it like spectacles behind the ears provokes nausea and is therefore undesirable.

The simplicity of the instrument enhances its usefulness. Patients use it gladly and are full of its praise. No complaints were ever heard of its interfering with the teeth, which would theoretically suggest itself. But there seems to be a great difference between rinsing the mouth with cold water, which comes in touch with all the teeth, and this mouth cooler, which touches the chewing surfaces of only four teeth. Patients with carious teeth who could not use cold gargles on account of provoking toothache have made no objection to the mouth cooler.

In the wards of Dr. Latzko, in the Wieden hospital, where there were no cases of sepsis at the time experiments were made with the mouth cooler, the instrument proved itself completely effectual in the majority of cases of patients who had been operated upon under narcosis. It reduces the feeling of thirst and diminishes the subjective sense of dryness in the mouth, so that it becomes unnecessary for relief to subject the patient to the danger and disagreeableness of vomiting, which is very apt to take place on the ingestion of the least bit of fluids the first and second day after operations under narcosis.

How far this mouth cooler might be used in gingivitis, stomatitis, alveolar pyorrhea, aphthæ, odontalgia, and traumas of the tongue, remains to be seen.

The apparatus is easily improvised and it is strange that no one has thought of it before, since we have had in use coolers of

this construction for the eyes, ears, head, heart, vagina, rectum. Why then should this important organ of sensation, the mouth, have been so "step-motherly" neglected? [The author seems to belong to the physicians of a past régime, whose professional dignity would not permit them to seek for patent rights for an invention that must prove useful for suffering humanity.—THE GLEANER.]

#### PROPER TEMPERATURE FOR PASTEURIZING MILK

Moze, Gerault and Direscu point out that in pasteurizing milk the temperature must not be kept too high or else there will ensue a destruction of the physiological ferments of the milk and its action is changed. It is enough to raise the heat to 67° or 68° C. (152.6° or 158.4° F.) in order to destroy all pathogenic germs, if it is maintained sufficiently long, say, ten minutes.—*Wien. Mediz. Woch.* 1910, col. 44.

#### FOSSIL HUMAN REMAINS

Marcelin Boule has collected various parts of a fossilized human skeleton at Chapelle-aux-Saints. By the trunk, members and skull he was able to assign these parts to the human group. Yet the skeletal parts present a mixture of characters, some actually human, and others inferior.—*La Médecine Orientale*, 1909, page 460.

#### INCARCERATED HERNIA REDUCED WITH ATROPINE

According to a note in Merck's "Annual Report" for 1908, H. Rabel has demonstrated the value of atropine injections in four cases of incarcerated hernia occurring at widely differing ages. Thus a boy of three was given 0.003 Gram (gr. 1-20) in one dose; a boy of 12, 0.001 Gram (gr. 1-67) in one dose; an adult man, 0.006 Gram (gr. 1-10) in a dose; and a man of 81, 0.005 Gram (gr. 1-12) in two doses; and in each case prompt reduction was obtained within six to nine hours. In the experience of the author the doses used should not be too small.





## Another Anti-Narcotic Bill: How About the Dispensing Doctor?

**W**E have had occasion to call the attention of our readers to two bills which have been introduced in Congress within the last two years, both intended, presumably, to curtail the traffic in habit-forming drugs. Unfortunately these bills were so framed as to impose a hardship upon physicians who dispense their own remedies. The first of these was the Mann Bill, introduced in the House of Representatives by James R. Mann, of Illinois, two years ago. The second was the Cullom Bill, introduced in the Senate a year ago by the senior senator from Illinois. The Foster Anti-Narcotic Bill (H. R. 25241) recently introduced in Congress, succeeds naturally to the two just mentioned. Though it differs somewhat in its details, its provisions are essentially the same as those of the Cullom bill.

The Foster bill provides "that every person who imports, exports, produces, or manufactures opium, morphia, coca leaves, cocaine, alpha and beta eucaine, chloral, cannabis, their salts, derivatives or preparations, and every person who further manufactures, compounds, deals in or distributes the aforesaid drugs, or either of them, shall register with the collector of internal revenue of the district his name or style, place of residence, and place where such business is to be carried on, and at the time of such registry, and on or before the first day of July in each year, every importer, exporter, producer, manufacturer, wholesale manufacturing pharmacist, wholesale dealer or jobber shall pay to said collector a special tax

at the rate of ten dollars per annum, and every retailer or distributor at retail shall pay to the said collector a special tax at the rate of one dollar per annum."

In addition there shall be levied upon all the aforesaid drugs an internal-revenue tax of five cents per pound or fraction of a pound, except on coca leaves, upon which the tax is one cent a pound or fraction of a pound; this tax to be paid by the affixing of stamps to each original package. When these drugs are further manufactured or compounded the packages or receptacles containing them must have affixed to them, in lieu of stamps, such labels or marks as will show the payment of the tax on the original drugs. Importers, manufacturers and compounders will be subject to the supervision of the Commissioner of Internal Revenue.

The feature of the bill of special interest to physicians is contained in Section 4, which makes it unlawful for any person or firm to send any of these "habit-forming" drugs *to any person other than a person who has registered and paid the special tax*, and which sets forth that it shall be unlawful "for any person to receive, in interstate commerce, any of the aforesaid drugs or any of their salts, derivatives or preparations, other than a person who is registered and has paid the special tax, as required by Section 1 of this act; but nothing contained in this section shall apply to public hospitals or scientific institutions."

Persons or firms who violate any of the provisions of this act shall "be fined, not

less than five hundred nor more than five thousand dollars, or be imprisoned not less than one year nor more than five years, or both, in the discretion of the court." Mere possession of any of the forbidden drugs "shall be deemed sufficient evidence" of the violation of the law, the defendant being required "to explain the possession to the satisfaction of the jury."

This bill is subject to practically the same criticisms which we made upon the Cullom bill, in the April, 1910, number of *CLINICAL MEDICINE*. First it should be noted that no adequate provision is made to protect the rights of physicians. While the retail pharmacist is not distinctly mentioned, nor the physician himself, it seems likely that the former is to be made practically the sole means of supply, this giving him a monopoly upon the distribution of these important drugs. In other words the physician must buy of the retail druggist. Of course, upon the face of the law, physicians may be allowed to register with the local collector of internal revenue, but although the tax is small, in practice it is large enough to debar a very large percentage of dispensing doctors from registration, since the amount of morphine, cocaine, etc., used by the average doctor is very small. Furthermore, by taking out licenses doctors may become stigmatized, in a sense, as sellers or "peddlers" of habit-forming drugs, such as morphine or cocaine. How many doctors are there who would be willing to suffer this stigma? It must be remembered, in this connection, that these lists are open to inspection, thus exposing any physician who may be registered to harmful exploitation or persecution.

As we state in our April, 1910, issue: "If the physician does not or can not take out such a license he will be limited as to his supplies to the brands, quality of drug or form of preparation which the retailer (and in many localities there is only one retailer within a radius of many miles—and in some cases none) may be pleased to supply. He can not compel the retailer (usually a small tradesman of limited capital) to carry a stock of adequate size, variety and quality to meet his needs. He would also be compelled to pay whatever prices may be charged, being practically debarred by

law from resorting to other more or less remote but legitimate channels of competition. The penalties provided are very high: any person who violates the act, on conviction 'shall be fined not less than \$500 and not more than \$5000, and be imprisoned not less than one year nor more than five years, or both, in the discretion of the Court.'"

Furthermore, it is considered *prima facie* evidence of guilt if the defendant is shown to have or have had in his possession the aforesaid drugs, salts, derivatives, or preparations, "unless the defendant shall explain the possession to the satisfaction of the jury." In other words, even though these drugs were not obtained through interstate commerce, any meddling busybody who sees 100 morphine tablets or a few ounces of cocaine solution on the doctor's shelf may have him arrested, brought before a Federal Court (no matter how far from home) and tried for a criminal offense, threatened with a large fine and imprisonment, and the burden of proof as to his innocence will rest upon him.

It is not our purpose to present here the manufacturer's, distributor's or jobber's viewpoint, but as a matter of justice the doctor should bear in mind that the difficulties placed upon distributing firms by this bill would be exceedingly arduous. Think, if you will, of the numerous preparations—pills, elixirs, tablets, etc.—which contain minute doses of morphine, heroin, codeine, cannabis and other drugs coming within the provisions of this act. The mistake of a billing or shipping clerk in the employ of any large manufacturing concern might result in the sending of one of these preparations to some person who has not paid his dollar tax, as provided for by this law (and how can the shipper secure positive assurance on this point), and yet a mere clerical error of this kind would expose the distributor to a fine and imprisonment. As *The Oil, Paint and Drug Reporter* says: "The bill would impose an almost endless amount of work upon wholesale dealers who endeavored to comply with its provisions—and the penalty it fixes for non-compliance is enough to make the hardest pause."

We are just as anxious as any one possibly can be to curtail the sale of habit-forming

drugs, but we protest that any method proposing to do this which interferes seriously with the physician in his everyday work, or with the houses supplying his legitimate needs, which makes it difficult for him to secure the drugs which he needs and which are practically indispensable to his success, puts a tax upon his humanitarian work in the interest of mankind and makes him a prey to any possible grafter—such a method is radically wrong. We therefore urge every physician to use his influence to secure proper modification of this bill so that the rights of the medical profession shall be protected. This can be done by adding to Section 4, so that the last clause in it shall read: "that nothing in this Section shall apply to public hospitals, to public or scientific institutions or to physicians or veterinarians actively engaged in the practice of their professions." Provision should also be made for the protection of distributors from prosecution for clerical error, and the sale of dosage forms practically free from drug-habit danger should not be pena'i ed.

As a matter of fact, the spread of drug habits cannot be placed at the door of doctors who dispense their own medicines. In the cases where the doctor is primarily responsible, in 95 cases out of 100 he writes prescriptions—these prescriptions being refilled time and time again (and usually without the doctor's consent) by the druggist. The physician who administers remedies with his own hands, and personally watches their effects, rarely indeed is responsible for a case of drug habituation.

Again, for the third time in as many years, we urge the readers of *CLINICAL MEDICINE* to protect their own interests, and to do this it is essential that they should write to their congressmen and senators and ask for a proper modification of this bill. Get busy!

#### CONJUNCTIVITIS IN CHILDREN

Of the numerous varieties of conjunctivitis I shall undertake to call your attention to those mentioned in the superscription, and discussion of the same in this paper will be as brief as consistency will permit.

To begin with, I wish to call your attention to the differential diagnosis between in-

flammations of the conjunctiva and of the iris.

In the first place, as characteristic of the congestion in conjunctivitis, we find the congested blood-vessels long and tortuous and narrowing in their caliber as they approach the cornea, thus giving a picture of active inflammation in the outer scleral zone that diminishes as the cornea is approached. In iritis, on the other hand, in addition to the congestion of the conjunctiva, there is also a very characteristic congestion of the ciliary vessels immediately surrounding the corneal margin, these being from one-thirty-second to one-twelfth of an inch in length, with their bases at the corneal margin and apices pointing straight out toward the sclera. So when we see a rosy-colored ring immediately surrounding the cornea, made up of short, straight, spike-shaped vessels, we may know we are dealing with an inflammation of the iris. By this we see that the nature of the congestion is a very important matter to remember.

1. Simple acute conjunctivitis is usually caused by a local irritant such as dust or other foreign bodies. It may accompany the exanthemata and other constitutional disorders, such as typhoid and other fevers, inflammation of surrounding parts also often giving rise to it. Colds may also be mentioned as a cause.

Occasionally we are called upon to treat an eye that has been the seat of a simple conjunctivitis for a number of days and on inspection we may find a small foreign body the cause of the trouble. After the removal of the cause, the treatment should consist in cold bathing of the eye and astringent instillations; one grain of alum to the ounce of water will answer very well, or you may instill a 2-percent solution of boric acid or a 1:500 solution of zinc sulphocarbolate in water. It is always best to continue treatment for a few days after congestion has disappeared, to prevent the possibility of its becoming chronic.

2. Acute catarrhal conjunctivitis, commonly known as "pink-eye", is due to the presence in the conjunctival sac of a bacillus, and the affection is highly contagious. There is marked congestion and swelling of the conjunctiva and it has that peculiar pink

color due to extreme congestion of the deeper fine vessels of the membrane. There is swelling of the lids with quite a free stringy discharge after a period of incubation of about thirty-six to forty-eight hours. The disease becomes fully developed in about three days and subsides in about ten. As to prognosis, this usually is good in the majority of cases.

The treatment consists in applications of ice five to six times daily, for half an hour at a time, and the frequent dropping into the eye of a solution of alum of 1 to 3 grains to the ounce of water. In addition, instillations of a 3-percent solution of protargol three times a day, and, if the discharge becomes profuse, applications to the everted lids of a 1-percent solution of silver nitrate.

Those attending these cases should exercise great care lest their own eyes become affected, and all dressing material employed must be burned—even towels are better destroyed than running the risk entailed in boiling then for future use. The foregoing treatment should be continued in a modified form for two weeks so as to prevent recurrence.

3. Purulent conjunctivitis ranks among the most important and destructive affections of the eyes, and the possible complications in this condition are many, while the danger to vision is great. The malady usually is caused by infection from the discharge of another person's eyes that are affected, or by the introduction of a purulent discharge from the genital organs into the eye. The gonococcus usually is found upon microscopical examination. The greatest percentage of cases are due to gonococcus infection.

Purulent ophthalmia sets in from twelve to forty-eight hours after infection; in infants the discharge commonly is noticed about three days after birth. There is itching of the eye followed by a watery discharge, swelling of the lids and conjunctiva, extreme congestion and profuse purulent secretion. The great danger in this affection is ulceration of the cornea, due to swelling of the conjunctiva, cutting off the nutrition, and to its being constantly bathed in pus; perforation of the cornea, or complete destruction of the eye from suppuration may result.

Treatment, at the time of birth, consists in wiping away all secretions from around the eye and washing out the conjunctival sac with a 3-percent boric-acid solution, then depositing a drop of a 3-percent silver nitrate solution in the eye. This is known as Credé's method and has greatly lessened the destruction to infants' eyes since its adoption.

The treatment of a case of purulent ophthalmia should not be started until a thorough inspection of the cornea has been made, while during treatment it should be inspected at least twice a day. If at any time the cornea appears hazy it will be an indication to use heat until the cornea is clear. Ice applications should be made almost constantly during the active part of the affection, the conjunctival sac being cleaned by irrigation with a 2- or 3-percent boric-acid solution; this being done as often as necessary to clear away all discharge.

In case one eye alone is involved, the unaffected one must be protected by means of a transparent shield fitted close to the nose and open for ventilation at the temporal side. In washing the affected eye, always be sure to direct the irrigation stream away from the sound eye, the patient's head being so placed as to have the sound one uppermost.

When the discharge becomes profuse, apply a 2-percent solution of silver nitrate to the everted lids twice a day, being careful that none of the solution comes in contact with the cornea; in addition, a 3-percent solution of protargol may be dropped into the eye three times a day or oftener. Upon the first sign of haziness of the cornea heat must at once be substituted for the ice, and as this is a most important point, it is plain why it is necessary to inspect the cornea frequently.

Although atropine is seldom employed in conjunctivitis, its use in careful hands will give rest to the iris rendered irritable by the inflammation close at hand. To prevent the eyelids from cohering and penning in the discharge, smear their edges with white vaseline or lanolin, while at night a 1-2-percent ammoniated-mercury salve should be put into the conjunctival sac.

The foregoing treatment must be carried out until all acute symptoms have subsided;

if possible, a trained nurse should be employed during convalescence. The treatment should be mildly stimulating. I find the inflammatory period greatly shortened if, during the entire course of the local treatment, I give the patient calcium sulphide to saturation and saline laxative every morning until all discharge is eradicated. Then I push the triple arsenates with nuclein to build up the patient. As a stimulator of the appetite, quassin is second to none in the line of drugs.

W. F. RADUE.

Union Hill, N. J.

#### THAT CARNEGIE REPORT

Apropos of the recent Carnegie Foundation report and its comments on the overproduction of ill-trained physicians, I would respectfully ask the privilege of recording my approval of what it says. Most of us, I imagine, if we told the exact truth, would say that we were not sufficiently trained. Any man who goes direct from the lecture room to private practice is inadequately trained. A minimum postgraduate twelve months medical service as interne in a good hospital, followed by six months surgical, six months obstetrical, six months gynecological and then six months clinical work covering all the specialties, should be required before a man could get his license to practise.

This license should be revokable for syphilis, gonorrhea, drunkenness, malpractice, immorality, cancer, tuberculosis, leprosy and insanity. A literary college course, while desirable, is largely ornamental. A good high-school course, however, should be compulsory; it should include four years of Latin, French and German, two years of Greek and perhaps one of Hebrew; one year each in general biology, botany, chemistry, physics and physiology. No man should be allowed to go into practice until he is competent and able to reduce any fracture or dislocation, repair a perineum, operate on any hernia or do any obstetrical operation.

The attendance on didactic lectures is a ridiculous waste of time. The professors could have their lectures printed and could

assign lessons and hold recitations on those lessons. In that way the students would not get their note books full of things the professors do not say. Undesirable and incapable candidates could thus be weeded out the first year.

A properly regulated high-school course would put a man in condition to go through a good medical school in three years and that would give him three years after graduation for the absolutely necessary hospital work, so as to get into practice at twenty-five years of age, which is plenty young enough. Clinical work during the college course is not only not essential, it is demoralizing to one's best efforts at study. Internes in hospitals should be given frequent examinations on subjects taught in the wards. A man could do an immense amount of purely scholastic work in three years if he didn't have to waste so much time attending lectures and clinics. One's time in college should all be spent in laboratory work, dissecting, studying lessons and reciting them, and leave the practical clinical work to be done after graduation.

I believe in a National Board of Medical Examiners. This would probably do away largely with present prevalent graft and favoritism abuses.

C. O. RICE.

Ramos Arizpe, Coah, Mex.

[The doctor's ideas are good but they do not fall in exactly with the spirit of the Carnegie report, which calls for longer preparation and a longer college course, rather than a shorter one. For instance, a high-school diploma or its equivalent is now required by practically every medical school in the country as a prerequisite to entrance upon a medical course. Several schools require two years of work in a literary college, and there are a few (and these are the ones endorsed by the Flexner report) which require the bachelor's degree. However, Dr. Rice has planned an exceedingly strenuous four years for his high school students. Four years in the medical college is the minimum and five years is now being advocated. The young physician certainly should have longer and better clinical training, and the didactic instruction should be



less declamatory and more practical. In this we certainly agree with Dr. Rice, and we agree with him that fitness to treat and cure the sick is the thing of greatest importance.

But we cannot join in the wholesale condemnation of our institutions indulged in by Mr. Flexner.—ED.]

#### TREATMENT OF DELIRIUM TREMENS

In the number of *Helpful Hints for the Busy Doctor* just received I note what Dr. C. E. Little has to say about the management of delirium-tremens cases. Having had not a little experience in this direction, I will contribute my mite for the consideration of those who may be called to attend such a case.

If the patient is very obstreperous and terrified at the imaginary presence of snakes and horrid devils, I give of the sedative mixture described below 15 drops every half hour until his nausea (which usually is present) is controlled and he is more quiet. Then I give him a quart of milk punch (with rum or whisky) into which I stir a tablespoonful of capsicum and bid him drink of it *ad libitum*. By the time the punch is gone he will go to sleep and then sweat the rum out of his carcass until the apartment smells like a Bowery bar-room.

The sedative mixture, or drops, referred to is composed of equal parts of chloral hydrate and camphor, triturated together until they liquefy. The dose, as stated, is 15 drops.

I have administered these drops to noisy and turbulent insane patients to calm them, with prompt beneficial effects.

GEO. D. STANTON.

Stonington, Conn.

[The "sedative drops" described by Dr. Stanton are identical with the "camphorated chloral" described in the National Formulary, its principal use being externally to allay pain, especially of the trigeminus. Dr. Stanton fails to mention his mode of administration, but presumably gives it in milk or liquor. Water causing separation of the camphor, the dose must be tremendously nasty. An improvement would be to dissolve the camphorated chloral in three times its volume of glycerin, flavoring with

oil of peppermint or cinnamon, and to give one teaspoonful of this in milk or wine. However, might it not be preferable to dispense the powdered camphor in capsules (or tissue-paper ball) and give the chloral separately in appropriate solution? But why use this unpalatable and sometimes unsafe mixture (chloral given in spirits is the "knock-out drops" of the slums) when H-M-C will beautifully control the terrible excitement of acute alcoholism, and a quick clean-out can be effected (in suitable cases) with apomorphine and elaterin? Capsicum, however, is an excellent stimulant for "d. t." cases. This may be given in the form of capsicin. Aromatic spirit of ammonia, glonoin or strychnine may be needed as bracers, where there are signs of shock.—ED.]

#### A POCKET REFERENCE TO CAUSES OF DEATH

Every physician should write to the Bureau of Census, Washington, D. C., for a neat little pocket reference book, giving the carefully classified International List of Causes of Death. This booklet was prepared by Dr. Cressy L. Wilbur, chief statistician for vital statistics in the Bureau, and is designed to bring about preciseness and accuracy in the making of official reports of deaths. The booklet is sent free. Every physician should have a copy.

#### GRAFTING IN THE MEDICAL PROFESSION

*The Chicago Daily News* discusses editorially "the well authenticated reports of grafting" that have lately been presented against the medical profession. After giving its meed of praise to the hard-working, overburdened doctor, subject to calls at all hours of the day or night, yet entering the sickroom always wearing the smile of cheer and hope (who has been an object of sympathy as well as of gratitude), the editorial continues: "While not a little can be done to remedy grafting in the medical profession by limiting the products of the medical schools doubtless a great deal also can be done by the people themselves. Let them

demand character in their physicians as well as skill, and let them see that in both respects they get what they demand."

Exceedingly well said, oh Wisdom, and so simple. Has it ever occurred to the wise, but withal naïve, editorial mind that it might be well to look at the reverse of the medal? After having "grafted" for centuries at the expense of the medical profession, the dear peepul must demand character in their physicians as well as skill and see that they get what they demand. Far be it from me to excuse the actual occurrence of graft, but its explanation does not constitute an excuse, and I submit that if graft exists at all in the profession, which perhaps has less black sheep among its fold than any other profession, bar none, the people have simply to thank themselves for its occurrence, and have merely the results of their own teachings and doings.

I maintain that from no class is graft levied in such an unblushing and shameless manner as from physicians; not occasionally, but constantly. For one man who calls promptly at his doctor's office and pays his bill for services received, ungrudgingly and in full, there are not nine, or nineteen, or forty-nine, no, there are ninety-nine—yes, nine hundred and ninety-nine—who not only let their physician wait for weeks, months and years before they pay his bill, but demand a "rake-off" as a reward for doing their simple duty. More, most of these "honest and grateful" people, who demand character in their physicians as well as skill, are exceedingly likely to suggest that the doctor's bill is so much money found, that it is not earned, that they are actually making a present to him of the amount; and they forget that not so long ago they would have been willing to pay ten times the amount down for the assurance that they would get well.

And still more: A great many people want and desire grafting *doctors*, as they prove by consulting the various advertising quacks and irregulars who operate under the no-cure-no-pay fake. To these gentry they give all their available cash, and then they demand from the regular physician not only the skill to cure them, but *the character to do it for nothing*.

What about the graft of the dear people who can well afford to pay for a physician's services and go to the dispensary, thus obtaining the value of money dishonestly and under false pretenses? What about the graft of the people who let the physician wait for his bills so that he must borrow money and then pay him short? What about the graft of the people who make the most unreasonable demands upon the time and the services of their physician and then blacken his character and his reputation?

Go to, Mr. Editor! The shoe fits on the other foot. The wonder is *not* that there is grafting in the medical profession; the wonder is that it is the rare exception, that it is not the rule. Instead of making unnecessary demands, let the people do their duty by their physicians, and we shall hear even less of graft than we do now.

H. J. A.

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#### DESERVED HONOR TO A GOOD MAN

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We are pleased, indeed, to learn that our old and dear friend, Dr. C. A. Bryce of Richmond, Virginia, editor and publisher of *The Southern Clinic*, has accepted the Chair of Electro-Therapeutics in the Maryland Medical College. Not only is Dr. Bryce to be congratulated, but the college is to be considered fortunate in securing his services. Best wishes, Brother Bryce!

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#### DEATH OF DR. LANDON B. EDWARDS

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It is with real sorrow that we announce the death of Dr. Landon B. Edwards, for many years the editor of *The Virginia Medical Semi-Monthly*, one of our most valued exchanges.

Dr. Edwards was born in 1845, was educated at the Lynchburg Military College and at Randolph-Macon College. He enlisted in the Confederate Army in 1863 and served until the close of the war. He then studied medicine in the Medical College of Virginia, the University of Virginia, and the University Medical College of New York City, graduating at the latter institution.

Dr. Edwards has had a distinguished medical career, having occupied many prominent positions. He was the founder of

*The Virginia Medical Semi-Monthly.* We know few men who will be missed more than he.

#### TO OUR ALKALOIDAL BROTHERS

There is a movement on foot to establish a large general hospital in China in connection with the missionary work now being carried on in the Celestial Empire; this has progressed to the extent of erecting the building and provision has already been made for the needs of a number of patients.

Dr. Anna Gloss, who has been in charge of the work, is now at home on a vacation, but she expects to return and take up the task again during the coming summer.

Dr. Gloss is professor of therapeutics in the native medical school and at the same time she is an expert alkaloidist. It is her aim and intent to establish an alkaloidal ward in the hospital mentioned above. She needs assistance in this work and we purpose to lend our aid in the very commendable work that she is trying to accomplish.

We shall be pleased to receive and acknowledge any donation that you may feel able to make, and we assure you that all donations will be religiously applied, and the names of those who so desire it will be placed upon a tablet in the ward when the work is fully completed.

Let us hear from you, Brothers, and be sure to contribute as liberally as you can. Address me personally.

W. C. ABBOTT.

Chicago, Ill.

#### DR. OSLER'S CHALLENGE ANSWERED

If I were so situated that I could accept Dr. Osler's challenge (see page 2, *CLINICAL MEDICINE*, January, 1911), I should gladly do so in order to demonstrate the truth about the value of vaccination. I should select the ten men who had been vaccinated from among those who eat much meat and use tea, coffee, tobacco, beer, wine and liquors; who lead inactive lives and consequently have a poisoned blood stream with the body full of accumulated waste matters, as is true of a large percentage of people—

this condition being the fundamental cause of much disease.

I should select the second ten, the *unvaccinated* persons (the individuals of both classes to be between fifteen and thirty years of age), from among vegetarians, or from those who eat very little meat and who do not use tea, coffee, tobacco, beer, wine or liquors of any kind, and who lead an active life—in other words, from those who have a pure blood stream, from a pure food supply, and *no failure* of elimination of waste matters.

To each of the latter ten persons (unvaccinated) I should give from 20 to 30 grains daily of pure, *freshly made* calcium sulphide, and I know from experience that *not any* of these ten unvaccinated persons (though thoroughly exposed) would contract smallpox in even the mildest form. Dear Brother Osler would not have any opportunity to arrange for funerals except for his own vaccinated friends.

L. A. MERRIAM.

Omaha, Neb.

[The late Dr. Coleman of Texas always insisted that yellow-fever and smallpox could be prevented by early and thorough saturation with calcium sulphide, and its value in the arrest of the exanthemata is a fact to whose verity thousands of able practitioners can testify. Read the report of the Syrian missionary, Dr. Clarence D. Ussher (see *The Medical Record*, and *CLINICAL MEDICINE*, November, 1909), telling how he put a stop to epidemics of typhus fever and scarlatina, before you scoff too much at Dr. Merriam's little article.—ED.]

#### EXPERIENCE WITH "606" (SALVARSAN)

The interest in Prof. Ehrlich's new remedy for syphilis, "606," or as it is now known, "salvarsan," continues to be very great. That it is a remarkable discovery there can be no question, but already there is a growing sentiment that this powerful arsenic preparation has dangers and disadvantages which were not foreseen when it was first presented to the profession, and that for the present it should be used with extreme care, in well-selected cases, and only by men

who have special facilities and training for treating cases of this character. Furthermore, it now seems probable that it will not prove so universally curative as it first promised to be. Something of the changing attitude, as mirrored in the mind of a general practitioner of unusual intelligence, who has investigated salvarsan personally, is set forth in the correspondence that follows:

—, FLORIDA, Dec. 15, 1910.

DEAR DOCTOR ABBOTT: I have been reading, with much interest, articles both in medical journals and literary magazines relative to Prof. Ehrlich's new remedy for the cure of syphilis, i. e., "606."

On page 1037 of October CLINICAL MEDICINE is an article from your pen regarding this treatment. In this article you stated that the remedy was not then on the market. I have since learned that it now is, and that it has been tried, with success, in several hospitals in this country. I see mentioned elsewhere that the October 13, 1910, issue of the *Deutsche Medizinische Wochenschrift* is devoted entirely to papers on this remedy which were read before a convention of German scientists and physicians on September 20 last.

Now, Doctor, in view of these facts, I am exceedingly anxious to learn more about this new remedy, the technic for its use, etc., in order to be able to give relief to my suffering neighbors, and in one case in particular, that of an innocent wife who is now showing ulcerating tertiary lesions that have not responded to mercury and iodide.

Dear Doctor, will you help me secure a few doses of the remedy and to learn the technic of administration? Secure for me a copy of the German journal or a translation thereof and draw on me for the cost. Words will not express my appreciation and I shall always remain your most obedient servant

Fraternally yours,

We replied to the doctor's letter as follows:

CHICAGO, ILL., Dec. 20, 1910.

MY DEAR DOCTOR: I am just in receipt of your letter of December 15, relative to Ehrlich's "606." This remedy is not yet on the market, but we are informed that it will be offered for sale after January 1. The American agents are Victor Koechl & Co., 34 Beach Street, New York. If you will write them, they can give you information concerning the remedy, including prices, etc.

The "606" thus far used in America is from supplies furnished free by Prof. Ehrlich to prominent medical institutions, like the Rockefeller Institute, and to a few eminent specialists in the principal large cities. Let me suggest that if you desire information concerning the remedy and its use, you secure from Rebman Company, New York City, one or more of the three books which they have recently issued concerning it—one by Ehrlich himself, another by Wechselmann, and the third by Bresler. I doubt if you can secure a copy of the *Deutsche Medizinische Wochenschrift* for October 13, 1910, in America. You might write to G. E. Stechert, 155 West 25th St., New York City, who supplies foreign books and journals.

Don't make the mistake, Doctor, of going too fast with "606." You will find considerable information concerning it in the January number of CLINICAL MEDICINE, both in favor of and against it. In this number there is an article by Dr. B. C. Corbus, who went to Frankfort and interviewed Ehrlich himself. With kind personal regards, I remain

Sincerely yours,  
W. C. ABBOTT.

The reply to this letter reached us some time later, from Philadelphia, where the doctor had gone to study the action of "606" at first hand. It follows:

PHILADELPHIA, PA., Jan. 5, 1911.

DEAR DOCTOR ABBOTT: Your reply to my recent letter reached me on the eve of my departure from Florida to Philadelphia, to which latter place I have come to investigate and study the results from experiments with and administration of "salvarsan."

I count myself very fortunate to have fallen in with Dr. Judson Daland, one of the sixteen physicians in North America to whom Prof. Ehrlich sent his remedy for test purposes. Dr. Daland also spent several months in Germany last summer, studying the technic and watching the results of this new drug.

I appreciate your timely advice, Doctor, and see now since I have witnessed the administration of "606" that you were correct in advising, "Don't go too fast." I feel that this personal warning may be insufficient, for there are undoubtedly many others who thought as I did about "606"—that all that was necessary was to secure the remedy, diagnose syphilis, have the patient come to the office, "shoot" him and tell him he was cured. Far from it! To carry out the technic of its proper use is practically impossible outside of a well-equipped hospital, for the preparation both of patient and drug must be under the strictest aseptic precautions, and the patient should be put to bed under the watchful care of a trained attendant. Too much stress cannot be laid on this, for here in Philadelphia serious consequences have already followed faulty technic, and for the country practitioner to attempt to use salvarsan without being thoroughly trained in its administration and knowing its dangers will surely bring harmful results and injury to the experimental progress with the remedy.

We have a new chemical compound most sensitive to many changes that in some instances has caused poisoning. It should be handled only by experts until the technic and dose have been fully determined upon.

With those to whom I have spoken it appears of vital importance that the profession be forewarned of the danger of the untrained use of this remedy. The technic is far from being perfected, having changed now as many times as there are months since it has been used in America.

I trust you will sufficiently see the importance of this to sound the warning note editorially.

I thank you for past courtesies and hope at some future day to give you my experience with salvarsan.

Sincerely yours,

Our advice to readers of CLINICAL MEDICINE, then, as it was to this good brother, is to

"go slow." We hope that salvarsan may prove to be all that has been expected of it by its most sanguine supporters. If a specific is found for this terrible disease, its economic significance, the bearing it may have upon the world's future, is almost beyond conception. More than that—it is a prophecy of future triumphs over disease, not only those of protozoan origin, but also perhaps over those due to bacterial infection, and over their more or less remote results.

But while we look eagerly for the victory it isn't wise to anticipate it. The great investigators, the workers in this special field, these must first work out the details; and we can be the more content to await patiently the results of their work since we already have remedies for syphilis which we know to be efficient, yes, curative, in the vast majority of cases, and which we know how to use. We can still depend upon mercury—the protoiodide, biniodide, and bichloride; upon iodine, as iodide, iodoform, calx iodata; upon the vegetable alteratives, especially phytolaccin; not forgetting the value of nuclein, of arsenic and of iron. Yes, there are few diseases in which we have so many effective remedies as in syphilis, even if we must wait a while before making "assurance doubly sure" with regard to the merits of "606."

It has come to our attention that quacks are already advertising "606" to the laity, through the *Chicago Examiner*. They state that "one dose cures" and that "Salvarsan can be taken in the privacy of the home." It is offered to laymen at \$30 a dose, the trade price being \$3.50. How these quacks secured stocks of the drug is not explained.

#### THE MEDICAL PROFESSION MUST CHANGE ITS TACTICS

He who is not a frequent visitor to radical clubs, does not come in contact with newspaper men, with "new-thoughters," etc., and does not read regularly the numerous naturopathic, health-culture and physical-culture and other allegedly advanced publications, can have no idea how the medical profession is ridiculed, how it is maligned, how it is lied about, how it is misrep-

sented, how it is "knocked" on every possible occasion.

We are pictured as ignoramuses, grafters, butchers, anxious to operate whether there is a necessity or not, drug dopers, etc., etc. We are denounced as a trust, a monopoly, and any attempt of ours to organize, to pass laws protecting the public health is characterized as an attempt at class legislation, a desire for special privileges, inspired by our fear of competition, by our fear of the superior skill of our irregular rivals.

And the average physician who has not given the matter any thought has no idea what effect these unceasing slanders and persistent lies have on the public mind, how suspiciously a large part of the public is beginning to look at the medical profession, how we are losing the confidence of the people, how the ground is slipping from under our feet.

As an illustration, we need only mention the reception that has been accorded to the suggestion of a Federal Department of Health. The motives that actuate us and the objects of such a department were at once misrepresented, the people were made to believe that their freedom to choose a medical adviser was threatened, the forces of reaction and obscurantism, masquerading in some instances under the guise of liberalism, were quickly marshalled, and in a short time a society was organized which now claims a membership of one hundred and fifty thousand.

We physicians are ourselves to blame. When the irregular, fantastic and pernicious cults began to make their appearance, we paid no attention to them. We thought they amounted to nothing and would soon dry up and shrivel away of themselves. When the malicious attacks began to appear in the various quack publications, we remained silent. We considered it *infra dignitatem* to pay attention to them, and we thought that the public would have no difficulty in seeing through their falsity and meretriciousness.

Our long and patient inactivity has been due to the false idea that the truth will always triumph and error is bound to die. Yes, eventually. But if error is allowed to grow and spread unhampered, while those who



see the truth will not take the trouble to proclaim it and expose the error, then it may take centuries before the correctness of the truth and the falsity of the error will be perceived.

In this as in every line of human activity prevention is immeasurably superior to cure, and the right way to fight is not to permit it to get a firm foothold. Error and superstition are hard things to uproot after they have attained the dignity of a universal belief.

It is time for the medical profession to change its tactics and assume a wide-awake, militant attitude. It is time for us to attack error actively wherever it shows its head. By reading papers before lay audiences, by participating in discussions, by writing to the newspapers, by refuting the false arguments of the false prophets wherever they appear, we can do much toward destroying the influence of the quacks and the irregular cults. In short, we must throw off our exclusiveness, we must go out to the public and take it into our confidence.

The truth is with us—that we know; only we must not hide it under a bushel and expect that its light will, without any effort on our part, penetrate into the darkest recesses of ignorance and quackery.

WM. J. ROBINSON.

New York City.

[How well Dr. Robinson is practising what he preaches is shown by his magnificent address on "Scientific Medicine Versus Quackery," the first installment of which is printed in this issue. Others can and should carry this work forward, not in one way only but in many ways. If it is not convenient or expedient for you to write or speak publicly you can at least help circulate Dr. Robinson's address. Read the editorial on this subject, this issue.—ED.]

#### THAT "CLEAN-OUT" SLOGAN, IS IT NEEDED?

I have taken CLINICAL MEDICINE for several years and read every issue as thoroughly as time will permit, but I believe that the last number (December) is the most helpful one to the general practitioner that

you have ever published. For the general practitioner in the country, meeting bare facts and conditions of all kinds, and alone, I do not believe there is anything published containing more information and inspiration for better, more thorough and precise work than your journal.

Your constant "clean-up-and-keep-clean" slogan may get monotonous and many may scoff at the constancy of your admonition of an idea shared so commonly by so many; yet, it is a good thing to be drummed into the ears of those of us who believe in it, that we may be still more thorough in our early elimination of toxins in disease, and it is also good to make the noise so loud that the skeptical doctor will be unable to get away from it; perhaps after trying "the experiment" (perhaps secretly) he will join with us in our beliefs.

I remember a case I attended three or four years ago to which I was called where another physician (one who has no use for "clean out, clean up and keep clean") had been treating the case, calling upon her twice a day for nearly two weeks. The husband became discouraged because of no improvement, and he was discharged. I took the case. I made a call, one afternoon, and the next morning the husband informed me at my office that he didn't think it necessary for me to come again. I thought I had "got mine" too, but was somewhat relieved when he added: "My wife is so much better I don't believe it is necessary." Two grains of calomel and one of podophyllin in divided doses followed by two or three doses of saline laxative, at intervals of an hour, "cured" a case of "gastric fever" of two weeks' duration.

Just a word as to the use of sulphocarbolates. I recently had a very severe case of dyspepsia, attended with severe flatulency. Patient had been troubled for five years. I treated her with remedies I usually employ, among them creosote. After two weeks the patient seemed no better. I decided to try some sulphocarbolates. The patient immediately began to improve and has been free from any gastric trouble since.

EARL H. FOUST.

Brooklyn, Mich.

[I hope every reader will keep that "dyspepsia" suggestion in mind. It's a good one.—Ed.]

### PURULENT OTITIS

Especially in the remote country regions, a general practitioner frequently has to do more or less work which more properly belongs to the domain of the specialist, and in this connection, I will in brief outline from my own experience a few points concerning the treatment of purulent otitis and describe two cases of mine which have occurred during the year just past.

Last winter, while I was in a reservation in western Nevada, in the United States Indian Service, I was called upon to attend to the case of a little girl, only a little over one year old, in the family of one of the Indian-Service employees. As there was no specialist in diseases of the ear nearer than Reno, 112 miles away, and the treatment of that case being a part of my duties to Uncle Sam, it naturally devolved upon me to go ahead and do my best.

I immediately began giving my little patient 1-6 grain of calcium sulphide every hour during the day and a 2-drop tablet of nuclein solution from three to six times a day. Knowing the value of iodine in suppurative diseases in general, I used as an irrigation a dilute solution of tincture of iodine in warm water in such a strength as to give a pale-yellow color to the solution. That treatment was continued two or three times a day until I was satisfied that there had been sufficient disintegration of the tissues to get rid of the effete material and that further use of the iodine in this way would be contraindicated. After that, other irrigations were used instead, such as a dilute solution of the compound solution of cresol, a 1 in 200 solution of picric acid or a 1 in 1000 solution of potassium permanganate.

Following the use of irrigations, I applied through a powder-blower (after wiping the interior of the meatus with dry absorbent cotton) at first salicylic acid and later on boric acid. After this local treatment, the patient's ears were plugged with absorbent cotton.

Of course it goes without saying that all through this treatment strict attention must be paid to the action of the bowels. In the case of small and unruly children, it is just about impossible to use Politzer inflation of the middle ear, and we must do our best to get along without this valuable assistance; also it frequently is impossible to get a young child to hold still enough to use the head mirror and ear speculum. A general practitioner away from a specialist must use his own inventive ingenuity in such cases as this. Well, the patient made an uneventful recovery without the least threat of the trouble extending to the mastoid cells.

The second case of this kind occurred in Pueblo, Colorado, only a short time ago. This patient was a very unruly boy, six years of age, with a running from one ear, the trouble having started with a tonsillitis. With the help of his father, I with difficulty managed to apply tincture of iodine to the boy's inflamed tonsils. As he had something of a fever, I put up for him aconitine, pilocarpine nitrate and strychnine arsenate in appropriate doses for his age, pilocarpine having a tendency to help loosen any false membrane that might be attached to the tonsils or pharynx, as well as assisting the aconitine in the reduction of the fever. The next day the fever was gone and the swelling of the tonsils greatly reduced.

I then had the patient take two of the 1-6-grain granules of calcium sulphide every hour and a 2-drop tablet of nuclein every three hours, and later on every two hours. Also I had the patient take instead of two of the 1-6-grain granules of calcium sulphide one of the 1-2-grain pills of the same drug till he had taken in the course of the day ten of the latter. Having just seen in the December, 1910, number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE, under the heading of Therapeutic Notes, that formin was useful in running ears, I determined to try that remedy here in conjunction with calcium sulphide and nuclein. Having in my possession some formin compound, each tablet of which contains 3 grains of formin, 1-2 grain of arbutin and 3 grains of ammonium benzoate, and knowing that the arbutin and ammonium benzoate were tonics to any mucous membrane and that the formin

was excreted at the site of infection, I gave the child these tablets, a half tablet in water to be taken every three hours, giving him phenolax wafers as needed to keep his bowels open.

As to the local treatment, I concluded that for ear work, tincture of iodine, though greatly diluted, was as a whole too energetic in its action to use as a routine measure in the irrigation of the meatus. The solution that I depended on in this case was one of the intestinal antiseptic tablets dissolved in about six ounces of warm water. This contains five grains of the combined sulphocarbolates of zinc, lime and soda, with a small amount of bismuth salicylate. The zinc and the bismuth also have the advan-

general practician to attempt that which he has not the skill nor the appliances for successfully performing; but by a little forethought, the country doctor can in many instances cure up his cases of middle-ear disease and consequently have no need of invoking the aid of the specialist.

FRANK D. PATTERSON.

Pueblo, Colo.

### PNEUMONIA? IF NOT, WHAT WAS IT?

I will write you my experience with a recent case:

The patient was Miss T., age 16 years. December 14, 1910, she was taken with a chill followed by a high temperature, 105° F. The temperature was taken by the parents. December 16 there was continuous high temperature, ranging from 104° to 105° F. December 17 I was called to see the patient at 9 a. m., and the temperature was 104° F.; cough severe, excessive amount of brick-dust sputum, severe pleuritic pain on the left side, upper lobe of left lung consolidated, and bronchial breathing.

The treatment was as follows: A cotton jacket was applied; calomel, podophyllin and bilein compound was administered and followed by a laxative saline; the defervescent compound was then given in small doses, frequently repeated, to effect, and this effect maintained by its use.

December 18, in the morning, the temperature was 101° F.; sputum free from blood; at 12 [midnight?] the temperature was 98.6° F. and remained so, the patient convalescing nicely.

In this particular case the clinical findings were so pronounced (chill, temperature, pleuritic pains, brick-dust sputum, and signs of consolidation of lung) that there could be no excuse for error.

You will note the symptoms all cleared up after forty-eight hours of treatment, following



Dr. M. W. Phillips, Chapman Quarries, Pa., in his "cozy cab"

tage of being mildly astringent. Once, in order to loosen a bunch of dried pus, I cautiously ventured to put a few drops of the peroxide of hydrogen into the above solution. However, if used at all, the peroxide in such cases should be used with extreme caution and not as a matter of routine, on account of the danger of spreading the infection into the mastoid cells. After this irrigation with the solution of the sulphocarbolates, which I had directed to be attended to several times a day, the meatus was carefully wiped out with dry absorbent cotton and boric acid blown in with a powder-blower and then packed with absorbent cotton. Under the above treatment, this patient made an uneventful recovery.

My object in writing this article is not by any means that of trying to encourage the

forty-eight hours' sickness during which he had *no* treatment.

What is your diagnosis, Brothers?

B. D. BROWN.

Apache, Okla.

[Say it! And, by the way, when *you* have a case of pneumonia, I would suggest that you try some of the remedies recommended by Dr. Brown, reading again the articles by Drs. Shaller and Bailey in last month's CLINICAL MEDICINE. The "clean-out," sulphocarbolates, the defervescent in the sthenic stage, the "trinity" in the asthenic, bryonin for the pleurisy-pains, nuclein as a stimulant of vital resistance, codeine or heroin for cough, emetin to "loosen", a chest protector, a light diet, and eternal watchfulness—these mean *quick* cures of pneumonia.—ED.]

#### TOBACCO HEADACHE

I have found a number of times that patients who suffer from headache due to excessive tobacco smoking, usually of cigars or cigarettes, are benefited, and the headaches dissipated by giving gelseminine, gr. 1-250 every hour. I have used it several times for this purpose, every time successfully.

WM. E. GIESREGEN

W. Philadelphia, Pa.

#### ALBRIGHT'S OFFICE PRACTITIONER

We notice that *Albright's Office Practitioner* has been combined with *The Physicians Drug News*, and we think the combination a good one. Both journals were devoted, in a considerable degree, to the business side of practice, and have proven of great value. Together they will undoubtedly increase their sphere of influence, and thereby their interest. We are pleased to note that Dr. Albright will serve the *News* editorially. We offer our best wishes.

#### ATROPINE USED IN HEMORRHAGE

In a recent letter you asked me if I had any cases illustrating the value of atropine in hemorrhage. I have had *one* case that is conclusive on that point, so far as one case

will go. I have had others which I will look up later.

A doctor, a friend of mine, was troubled with a growth on one of the turbinates which caused a most troublesome cough. At last he determined to have it removed. For



Dr. F. E. McCann, Augusta, Mont., making a call and bringing home a "sheep"

this purpose he went to a city some distance away to the man he considered the best operator for this work. The growth was removed and after some time and trouble the hemorrhage was stopped and he started by train for home, some 70 miles away. On the journey back the bleeding started again and continued after he got home, in spite of all that several physicians tried.

This went on for over thirty hours, when, becoming alarmed, he went to the depot to take a train to the physician who had operated on him, but on getting on board the train he fell down in a dead faint, and they had to take him home in a hack. The condition was becoming desperate and his wife came to me and asked me to go and see him. There were certain reasons why I was reluctant to do this, but on her fully explaining the state of the case, I went.

I found the man almost pulseless, unable to stand, and the bleeding going steadily on. I told him what I was going to do, and he whispered so low I could hardly make out what he said: "I have never had a hypodermic injection." I gave him a little whisky and water and then injected 1-50 of a grain of atropine sulphate into his arm. After a few minutes he whispered: "Not a drop of blood since you gave me that in-



Dr. A. Field, Stonington, Ill., ready for a long, cold drive

jection," and from that time on there was not the slightest hemorrhage.

This was a grand success for atropine, as he was nearly gone and could not have lasted much longer. As it was, it took him more than four weeks to get over the loss of blood.

HENEAGE GIBBES.

Detroit, Mich.

#### EXPERIENCES WITH PELLAGRA

I have just read the articles in the December number of *THE CLINIC* on pellagra, by

Dr. Bowling and Dr. Torbett, with considerable interest, and I beg to contribute a little experience of my own on the same subject.

I treated three typical cases during the past spring and summer. Two of them were white women and one was a colored woman. These three cases are the sum total of my pellagra experience, and unlike Dr. Bowling and Dr. Torbett, I recognized my first case, or, in other words, pellagra has not made its appearance in this neighborhood till the present year.

I made it a point right in the beginning of the pellagra "talk" to visit one of our public hospitals where they had a score or more of authentic cases, and I decided then that I had never seen a case before. I agree with the editorial note that a great many cases of pellagra look in many respects like sprue.

I began the treatment in all my cases with small doses of calomel and podophyllin, and followed with laxative salines. The calomel and podophyllin were repeated once or twice a week, but the salines once or twice a day, and the sulphocarbolates were pushed, giving as much as two tablets every two hours till effect.

In my first case I gave chlorine water, but gave it in teaspoonful doses every four hours instead of every two hours as does Dr. Bowling, and as for the salines and sulphocarbolates, I was never able to get a satisfactory amount down the patient, owing largely to the poor nursing facilities. In this case I did not give arsenic. The patient died after an illness of four or five weeks.

In the other two cases I was able to push the salines and sulphocarbolates "to effect," used ordinary doses of Fowler's solution and good large doses of subnitrate of bismuth with finely powdered chlorate of potassium, taken in the mouth without water and slowly swallowed. These patients improved rapidly and have been apparently well for several months.

There is one symptom of pellagra which, so far as my literature on the subject goes, is not mentioned, and it is this: In the negro the pigmentation of the skin in the surfaces that have had the eczematous eruption is always much darker—often approaching



black. A darker discoloration than the surrounding skin is to be expected, and it often continues after all inflammatory and squamous stages have disappeared.

A. GRAVES.

Leighton, Ala.

[This report again verifies our "suspicion" that intestinal cleanliness—antisepsis—is a most important—the most important—factor in the treatment of these cases.—ED.]

### THE WHITE-SLAVE TRAFFIC

The articles published about the social evil in the last few numbers of *CLINICAL MEDICINE* have attracted a good deal of attention, among others that of Mr. Arthur Burrage Farwell, president of the Chicago Law and Order League, who sends us a number of pamphlets telling of the work of the League along the line of sex education (as suggested editorially in our journal) and in particularly combating the white-slave traffic. Some of these pamphlets tell how young women are lured to destruction, and many of them emphasize the absolute necessity of awaking (and educating) the entire public to the importance of this great sex problem.

### THE TREATMENT OF EPISTAXIS

One reads in almost every medical journal of remedies for the treatment of epistaxis, and the number of different remedies suggested indicates what a common condition it is. I have never yet seen a treatment promising a permanent cure.

Epistaxis occurs most commonly among young boys and girls about the age of puberty, and among young women markedly anemic from indoor occupations, i. e., stenographers, clerks in stores, etc. A careful examination of the nasal mucous membrane in the great majority of cases will disclose a minute ulcer, usually on the septum nasi, but it may be elsewhere.

My own practice is to swab the membrane very gently with a warm saturated solution of boric acid, then to apply to it a pledget of absorbent cotton, saturated with full-strength adrenalin solution, 1 in 1000.

This is left *in situ* for about five minutes, then a second pledget dusted with novocaine is left in the nose for another five minutes. Then under a good electric headlight I proceed to cauterize the whole surface of the ulcer with an electric cautery, carefully and very lightly, as a burn through the septum would be undesirable, to say the least.



From "The California Desert", sent by Dr. H. L. Coffman, Palm Springs

A little powdered boric acid blown on with an insufflator soon arrests any little bleeding, and that is the end of epistaxis for that patient. Proper internal medication for anemia, when present, should of course be given.

HUGH JAMESON.

Titusville, Pa.

### MEASLES, SCARLET-FEVER, MUMPS, SMALLPOX

These diseases seem to be prevailing generally in all parts of the country. Under the circumstances it seems timely to suggest

that there is one remedy of the utmost value in all of them. I mean calcium sulphide. Every patient suffering from any of these three diseases should be simply *soaked full* of this not too pleasantly-smelling substance. After all, though the odor isn't of the nicest, it isn't bad to take and seldom disagrees with the stomach, even of an infant. Give the 1-6-grain granules, from one to six at a dose, and from every hour to every three hours, according to necessity. Go after the "breath reaction." Remarkable results have followed the use of calcium sulphide, *when good*, in the experience of many physicians. We should like to have the reports of a large number of physicians with this remedy in the contagious diseases, for publication during the next two or three months.

Of course calcium sulphide is not the only remedy of value in measles, scarlet-fever, mumps and smallpox, though it is perhaps the most valuable. Thorough cleaning out of the bowels and disinfection with the sulphocarbolates; the use of the small, frequently repeated dose of aconitine, perhaps guarded by brucine or strychnine arsenate; atropine or pilocarpine if the eruption is delayed; veratrine, copious bland fluid alimentation and hot baths if elimination is imperfect; nuclein if the defensive forces are weak—nearly always nuclein as a matter of fact; inunctions with a bland antiseptic ointment, especially in scarlet-fever, or perhaps mercury bichloride sponging in smallpox—all these remedies, and more, will be thought of by the discriminating physician.

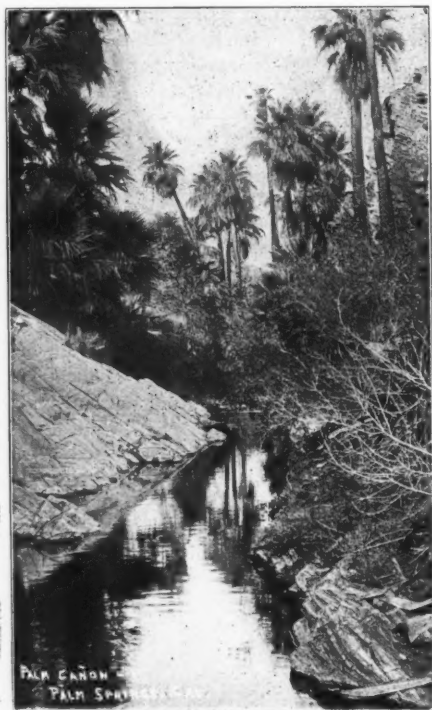
Let's talk all these things over—not forgetting your experience with calcium sulphide. Everyone! Next two months.

#### WAS IT ACUTE ANTERIOR POLIO-MYELITIS?

I was called about midnight to see a six-year-old boy. The child had been in convulsions off and on for several days, and had been treated by another physician with chloral and bromidia. Cramps, vomiting, stupor, pain in the back, joints and limbs, with a fever of 102° F., presented themselves to my view. As scarlet-fever was then prevalent, the attending physician had pro-

nounced the case probably one of that disease, and the house was placarded accordingly. His efforts to relieve the boy (who like his parents is of a nervous constitution) seemed to fail.

As the doctor had a call into the country he requested me to go and see the case.



Making the desert bloom, sent by Dr. H. L. Coffman, Palm Springs, Cal.

A short examination decided me to give a rectal injection of soapsuds. Well, the result simply astonished us all. The first discharge was a 25-inch long, solid, dark-colored string of soft feces, which shot out like an arrow from a bow; then came a copious discharge of offensive gas. After this the boy seemed to feel easier. About half an hour later slight convulsions started again, but a dose or two of hyoscyamine had the desired effect of controlling them. I gave the patient at once small doses of calomel and podophyllin, and ordered saline laxative to be given in the morning.

When I called again, the next morning, I found, beside a dull pain in the legs and

joints, what seemed to me a paralytic condition, also a similar condition in one arm. Not daring to frighten the family by diagnosing infantile paralysis, cases of which had just previously been in town, I simply told them that there was certainly no scarlatina, but would not yet diagnose the case, but decided to treat symptoms only as they arose, which arrangement suited the family perfectly. I happened to have some unguentum Credé which I had bought for another case, and after using it first myself, to show the way of the application, I directed it to be used every six hours—though afterward I was compelled to rub it in myself, since both father and mother were too excited to do anything.

Having just had my attention called to the curative properties of chromium sulphate which by the way I have so far found to do all that is claimed for it, and more beside—of which I hope to be able to give you an inkling later), I gave the patient one-fourth of a 4-grain tablet four times daily. Triple arsenates with nuclein, and lecithin later on, rounded up the treatment, and in less than three weeks I had a sound and well boy. Asepsis of the bowels was sought by the use of the sulphocarbolates.

Now arises the question, was this an acute anterior poliomyelitis, and if so, was my treatment proper and scientific? At any rate I know it was decidedly effective and gave satisfaction.

C. K.

—, Kansas.

[It is impossible to state definitely from the doctor's report whether this case was or was not one of infantile paralysis, but the association of fever with pain in the back and limbs and the *probable* temporary paralysis suggest it strongly. Unfortunately, the doctor gives us no history of how long the apparent paralysis persisted. On the other hand, intestinal toxemia may give rise to stupor, nervous twitching, convulsions and an eruption that closely simulate that of scarlatina—and the enormous fecal accumu-

lation in this case suggests that a goodly share of the trouble may have been in the bowel, whatever else may have been the matter. At any rate, the doctor's treatment was symptomatically good.

We shall be on the lookout for that report of experience with chromium sulphate. —Ed.]

## POST AND HIS PRODUCTS

Doubtless most of our readers have seen something of the controversy between C. W. Post of Battle Creek (the maker of grape nuts and postum cereal) and *Collier's Weekly*.

It is not our purpose to enter into this discussion, which has already become decidedly acrimonious. It seems, however,



Dr. I. P. Israel and family, Bluff City, Ark.

that Mr. Post's advertising *has* had in it too much of the medical character—there has been too much of the suggestion that his excellent foods are curative for certain diseases.

In this particular it is open to criticism. But, even admitting this, I can not believe that his presentation has done any very serious injury to anybody. Persons who are suffering the pains of appendicitis will none of them go to a diet of grape nuts as a panacea; while, on the other hand, the constant advocacy of a simpler, more abstemious dietary must have had a good hygienic effect upon the thousands of people who have been accustomed to habitual excesses and indiscretions in eating and drinking.

Then, perhaps, no one has done more than Post to point out the dangers (sometimes in an exaggerated way, possibly) of excessive coffee drinking; and it is likely that thousands have been benefited by turning from this stimulant beverage to the absolutely harmless cereal drink, postum.

On the whole it strikes me that Post's advertising misdemeanors are more than balanced by the positive good that he has done; and *he makes good foods*.

In the flood of criticism, this fact, the most important of all, has been kept very much in the background. I am very glad to speak well of his products, which I believe deserve the commendation of the medical profession.

As for Mr. Post himself, I would say that I know him personally and have found him a clean, earnest, enthusiastic man. Like other enthusiastic men, he sometimes makes mistakes—but what man of this kind does not. I do, but this, my position, *I believe*, is not one of them.

#### ADE'S BACILLIAN LYRIC

At a recent Chicago "function," Mr. George Ade, the well-known humorist, dramatist and Indiana agriculturist, enlivened the proceedings by presenting the verse here given:

A lovelorn microbe met by chance,  
At a swagger bacterial dance,  
A proud bacillian belle, and she  
Was first of the animalculæ;  
Of organisms saccharine  
She was the protoplasmic queen,  
The microscopic pride and pet  
Of the biologic smartest set.  
And so this infinitesimal swain  
Evolved this pleading, low refrain:

"Oh, lovely metamorphic germ,  
What futile scientific term  
Can well describe your many charms?  
Come to these embryonic arms,  
Then hie you to my cellular home  
And be my little diatome."

His epithelium beamed with love;  
He swore by molecules above  
She'd be his own gregarious mate  
Or else he would disintegrate.  
This amorous mite of a parasite  
Pursued the germlet day and night

And 'neath her window often played  
This Darwin-Huxley serenade:

"Oh, most primordial type of spore,  
I never met your like before;  
And, though a microbe has no heart,  
From you, sweet germ, I'll never part.  
We'll sit beneath some fungus growth  
Till dissolution claims us both."

Since our readers will surely want to know how this romantic courtship came out, CLINICAL MEDICINE's poetaster proceeds to complete the heart-rending story:

But the bacillian belle, in a pus-tube sweet,  
Had been won by a gallant spirochete,  
Who had traveled far and knew love's game—  
So she spurned the pestilential swain:  
"Go, quaff a draft of '606'  
And chase yourself to the splenic Styx.  
You're as tame as barnyard aspergillus;  
Go hunt your ma, Mr. Bill Bacillus."

\* \* \*

It's the bold bad man who wins the dame;  
If you stick round home—then "Mud" 's your name.

Any further comments, anybody?

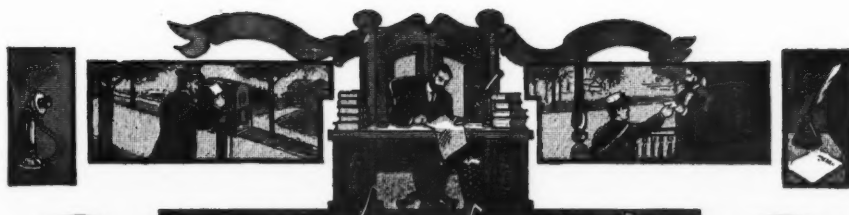
#### A SUIT AGAINST THE AMERICAN MEDICAL ASSOCIATION

The following, clipped from a Chicago newspaper, January 6, 1911, will doubtless be of interest to members of the medical profession:

Mandamus proceedings to compel State's Attorney Wayman to begin quo warranto proceedings against the board of trustees of the American Medical Association were begun yesterday when a suit was filed in the Circuit Court by attorneys representing Dr. G. Frank Lydston, member of the Association. Dr. Lydston seeks to have the trustees removed, alleging that they are acting illegally, and sets up in his petition that State's Attorney Wayman has refused to sign a petition for leave to file an information in quo warranto, which is necessary before proceedings can be started.

Dr. Lydston alleges that the Association has been operated as a corporation, autocratic and despotic, and "is not a real expression of the voice of the rank and file of its membership."

Dr. Lydston's statement in regard to the suit is as follows: "The American Medical Association is governed by the votes of men who are not legally entitled to a voice in its management. The Association has been doing business illegally for ten years, its elections being held outside of the state. This is contrary to law. My general fight is to obtain a democratic government for the Association which will conserve the rights of its members, take the management from the hands of a selected few and place it in the hands of the members, where it belongs."



## CLINICAL MEDICINE POST-GRADUATE SCHOOL OF THERAPEUTICS

George F. Butler, A. M., M. D., Director  
Thomas J. Mays, M. D.  
C. B. Neiswanger, M. D.

C. E. de M. Sajous, M. D.  
William F. Waugh, A. M., M. D.  
Alfred S. Burdick, A. B., M. D.

### PART III—LESSON SEVENTEEN

#### GASTRIC ULCER AND GASTRALGIA

##### THE TREATMENT OF GASTRIC ULCER

The treatment of ulcer of the stomach will vary with the stage of the lesion and the symptoms that may be presented. The objects to be fulfilled are the healing of the ulcer, the avoidance of all irritating agents, and the relief of troublesome symptoms. This end is best obtained by rest not only of the stomach but also of the body generally.

**The Rest Cure.**—This treatment, known as the treatment by rest or rest cure, first recommended by English physicians and lately by Leube, is to be carried out in a systematic manner. Rest of the body is best effected by assuming the recumbent posture, rest of the stomach by feeding the patient entirely by nutritive enemas. But as this latter is only possible for a short time, food when administered by the mouth should be easily digestible and not irritating. This dietetic treatment is further helped by the administration of alkalis, to diminish the hyperacidity of the gastric juice, and by the application of hot fomentations to the epigastric region.

The class of treatment in by far the largest number of cases resolves itself into this: The patient will remain in bed for some weeks, in fact until the acute symptoms have subsided. Hot fomentations are to be applied to the epigastric region; or instead of poultices, the stomach-capsules first intro-

duced by Leube. This contrivance consists of a tinned capsule so shaped as to fit the epigastric region. For use, it is filled with hot water. It has a metallic ring on each side so that it can be easily fastened so that it may be worn even when the patient is about.

**Nutritive Rectal Enemas.**—To give the stomach complete rest, some have recommended feeding by enemas exclusively, but it is scarcely advisable to treat all cases in this manner without distinction, nor is it possible to carry out this treatment for a long time without bringing on inanition.

Exclusive rectal feeding is indicated when vomiting of ingesta is persistent, when eating of food causes great pain, when there is hemorrhage from the stomach, and when perforation has occurred or appears to be threatening. But even in these cases exclusive rectal feeding rarely need be prolonged beyond a week or two weeks. The patient may take nothing by mouth except small pieces of ice or small quantities of water just sufficient to quench the thirst.

For the rectal feeding many physicians recommend artificially digested foods, such as peptonized milk gruel and peptone suppositories. Many, however, prefer to give enemas of beef tea and raw eggs with a little brandy, in all about two to three ounces. The peptonized food is more readily absorbed, but the observations of Ewald show



that ordinary enemas of eggs act equally as well and are quite as well absorbed. Peptonized suppositories sometimes irritate the bowels or are not well retained, and unless recently prepared, are sometimes passed out again unaltered.

Before giving the nutritive injection, the rectum should be emptied by one of water. The nutritive enema may be given every four to six hours.

Milk gruel for enemas is prepared by mixing 10 ounces each of rich milk and thick gruel, and to this 2 teaspoonfuls of liquor pancreaticus, and 30 grains of sodium bicarbonate are added. To increase the nutritive value, an egg may be added before the addition of the pancreatic essence. Peptone suppositories weigh about 60 grains and contain between 40 and 60 percent of peptone.

**Dietary in Gastric Ulcer.**—Milk occupies the first place in the dietary, its advantages being that it is alkaline, lessens the acidity of the gastric juice, and it does not irritate the mucous membrane either mechanically or chemically, it does not call forth vigorous peristaltic movements of the stomach, nor does it remain long in the stomach. Not more than 4 to 6 ounces of milk should be taken at once, and in twenty-four hours altogether three to four pints should be consumed. The milk, which ought to have been well boiled, may be taken warm or cold. When it produces acidity, an alkali such as sodium carbonate may be added.

If plain milk is not well borne, peptonized milk may be tried instead. In some cases milk in any form is not tolerated, and if so, then, besides rectal feeding, freshly extracted beef juice may be given a trial. In some cases of persistent vomiting in patients fed by nutritive injections, scraped raw beef (at first taken in very small quantities) has been well borne, given relief to the pain, and stopped the vomiting. When the patient gets tired of milk or the foods named fail to give satisfaction, then some of the various prepared foods, or powdered rice or arrowroot, raw eggs or beef essence are to be remembered. An exclusive milk diet, so far as possible, ought to be continued from three to four weeks. The epigastric

pain, as a rule, has disappeared and the vomiting has stopped long before that time, but it is well to continue the treatment so as to give the stomach rest and avoid irritation. Then for a week or so the patient may still be kept on liquid diet, but with the addition of biscuit or stale bread. He may take bread and milk, or milk boiled with a little sifted flour, or also arrowroot and tapioca.

After a week of this regimen, if the pains do not return, the patient may pass on to solids, such as boiled fish, chicken, pigeon, sweet bread. Scraped beef and raw eggs may also be given with this dietary. Stimulants better are avoided altogether. With this diet, which may be continued for some weeks, the patient often gains weight and may be allowed to take gentle exercise. Gradually mutton chops and small quantities of underdone steak may be taken together with stale bread. Vegetables, however, with the exception of rice, are still to be forbidden, as are cakes and pastries. Milk and small rice puddings may now be allowed.

The duration of this dietary depends on the condition of the patient. If he feels sufficiently strong, he may now follow his occupation and make gradual additions to his dietary. The more indigestible food-stuffs, such as vegetables and pastry should, however, not yet be taken at any time. Patients who have suffered from gastric ulcer should be careful in their diet, not only for weeks, but for months, and with the return of any such symptoms as pain or vomiting, the treatment with rest and strict diet should then again be enforced.

**Supervision of the Bowels.**—About as essential as the diet is the strict supervision of the attention to the bowels. Constipation is a common accompaniment of gastric ulcer, and its proper treatment is as important as dietetic measures.

Effervescent saline laxative is the chief aperient recommended. This salt, apart from its aperient effects, acts beneficially by diminishing the acidity of the gastric juice, and stimulating the secretion by increasing the peristalsis of the stomach. If greater alkalinity is desired, a little sodium bicarbonate may be added to each dose of saline laxative. In many cases the good effect of the aperient cannot be doubted;

nevertheless, in some the salt increases the pain and discomfort after meals and diminishes the appetite. In such cases, which however are very rare, I have found simple enemas to be of service.

**Medication.**—Medicinal treatment, in many cases, may assist the dietetic needs. The remedies especially to be recommended are bismuth in the form of the subnitrate or subcarbonate, and sodium bicarbonate. Large doses of bismuth have been recommended; 150 to 300 grains of bismuth subnitrate are suspended in about eight ounces of water, and the mixture is passed into the stomach, first washed out by means of the stomach-tube. It is then allowed to remain in the stomach for fifteen minutes, during which time the patient occupies such a position that the bismuth is brought into contact with the ulcerated surface, if the situation of the lesion can be determined. After this lapse of time the fluid is allowed to run out again through the tube. At first this method is applied daily, and after a time once in two or three days. When the passage of a tube is contraindicated, the bismuth mixture is to be drunk. The bismuth is supposed to act mechanically by forming a covering which protects the ulcer and facilitates healing.

It is well, however, to bear in mind that there have been cases of poisoning from the subnitrate of bismuth, and so the subcarbonate is often used in preference. The subnitrate, if used at all, should be absolutely chemically pure.

When bismuth is given, it should be before meals, and if the pain be very great or irritability of the stomach excessive, it may be combined with 1-10 of a grain of morphine, or 1-4 grain of cocaine. If the appetite be deficient, strychnine or quassin may be added to the mixture.

The carbonate of sodium, calcium, and of magnesium have, for a long time, been given in cases of gastric ulcer. Of these, the first (sodium bicarbonate) is still largely given. The French physicians, especially, report good results and state that such large doses as 300 to 450 grains a day are very well borne by these patients, they only complaining of increased thirst and augmented urination. Occasionally, however, such large

doses produce profuse diarrhea; but this can be obviated by giving some calcium carbonate with the sodium bicarbonate.

Silver nitrate is also an old remedy for gastric ulcer. It is said that it will relieve the pain even better than morphine, while giving relief to the other symptoms as well. Boas has recommended it very highly in the form of solution, in small but gradually increasing doses, beginning with 1-2 grain three times a day and going on gradually to a full grain.

**Combatting Pain.**—The application of hot poultices or fomentations and rest and regulation of the diet often suffice to relieve the pain. The use of bismuth and silver nitrate has also been mentioned for the severe paroxysms of pain or gastralgia. Codeine, or better still, morphine, either by the mouth or subcutaneously, is indicated. In vomiting or persistent vomiting, abstinence from food by the mouth for some days is to be recommended. Of drugs, drop-doses of dilute hydrocyanic acid, or of bismuth with cocaine often act well.

**Checking Gastric Hemorrhage.**—The patient is to be kept absolutely at rest and in the recumbent posture; he should not even be allowed to get up to pass urine and feces, and all foods by the mouth should be avoided. If the patient be excessively thirsty, he may swallow small quantities of ice, but even this should be withheld if possible.

If the hemorrhage persists, ergotin should be injected subcutaneously, and ice applied to the epigastrium. In profuse hematemesis oil of turpentine will act well. This may be administered either in capsules or as an emulsion. For the latter, 2 or 3 drams of oil of turpentine is beaten up in the white of one egg, of which 20 to 30 minims may be given, and repeated after some hours if the hemorrhage persists. Ice, gallic acid, ergotin and other styptics have been used with success.

If the anemia produced by the hemorrhage be excessive, the pulse scarcely perceptible, the heart becoming feeble, and the patient showing signs of syncope, then transfusion or injection into the subcutaneous tissue of one pint or more of normal salt solution may be resorted to. For some three to six days after the last attack of hemorrhage the pa-

tient must be fed exclusively by enemas and must maintain the recumbent position. After that period, the treatment for the healing of the ulcer by rest, i. e., liquid food and hot applications to the epigastrium, must be systematically carried out.

In cases in which profuse hemorrhages occur from time to time and exhaust the patient, an operation may be advisable. In cases of perforation, large doses of morphine are to be given, the patient being steadily kept under its influence by means of opium or codeine in suppositories or in small enemas. At the same time, as a stimulant, caffeine may be given by the mouth or subcutaneously, as also rectal injections of brandy. Perforation must be treated surgically.

#### GASTRALGIA

The treatment of gastric neuroses is of two kinds or purposes. Immediate relief is urgently needed in bad cases. In all cases general treatment is required to cure both local distress and the state of the system determining the malady.

First let us suppose that the gastralgia appears in a young woman whose general condition is not one to cause much anxiety. She may be anemic, in which case her general condition will not be forgotten. Iron alone may bring relief, but if not, arsenic carefully used will pretty surely secure the same. It is needless to say that diet and mode of life must be carefully ordered.

**Rest Treatment.**—Next let us suppose the patient to be an older person, of either sex, of neurotic nature, and reduced by pain, refusal of food or adverse circumstances.

Here, the first thing to be done is to put the patient to bed for a week, and no excuses arising from mere restlessness are to be admitted. Many a bad case of gastralgia, as of other neuralgia, has been cured by two or three weeks in bed, with careful management of the diet, warmth, rest and seclusion from affairs, the coaxing of bland food into the weary stomach; a little hydrocyanic acid being the chief agent of relief. If massage can be added, light at first and increased as the strength will bear it, the recovery will be facilitated.

If after the first two days in bed the pain is still troublesome, let codeine or small doses of morphine be given. It is better, for obvious reasons, to avoid the hypodermic syringe, and, fortunately, in these cases nothing answers better than small doses of codeine, the nature of which the patient may well be ignorant of. Some means may be used to avert constipation, if preparations of opium are given. Cannabis indica is recommended by many authors. Opium and its preparations are far more trustworthy, and if kept under the control of a physician, may be used for some days or even for two or three weeks without ill consequences. Cocaine is not more useful and has disadvantages of its own.

**Acids and Alkalis Not Needed.**—As the digestive act itself is by the nature of the case supposed to be fairly normal, no acid, alkali, bitters and the like are required; nor, in my experience, is rectal feeding, so useful in many stomach diseases, required in these neuroses, although a clyster of water as hot as it can be borne may relieve the pain. For the same reason I do not trouble myself much with pepsin, pancreatin or predigested foods. The stomach can deal with tender and bland articles of diet well cooked, divided, and given in small quantities, and they are far more enticing to the patient and more acceptable to his stomach than peptonized foods. Indeed, too strict a rule of diet, in these cases, is to be deprecated, even whims must be regarded and occasionally welcomed.

**Other Measures.**—Warmth and even mild counterirritation to the epigastrium are profitable. After a few days, silver, either as a nitrate or the oxide in pills, will be of service in combination with codeine and morphine; or, if this drug be no longer necessary, alone.

As the gastralgia subsides, the patient must be toned up in the usual way. Arsenic must not be forgotten as one of the best remedies for chronic gastralgia, but during the acuter stages, codeine (or morphine) is the one drug of real service. The value of arsenic in asthma, eczema, and even in angina pectoris, probably depends on the same virtue, whatever it may be. If there be such a thing as malarial gastralgia, quinine must

be the means of cure. Strychnine, in my experience, has not been found of any great service in any form of the malady, save in the form of the triple arsenates of iron, quinine and strychnine.

**Gout and Gastralgia.**—That the epigastric pains of gout are gastralgie in the sense in which we are now using the name is improbable. If gout or hysteria be concerned in the matter, the treatment appropriate to these diseases must be applied, according to indications.

Sometimes we will have pain in the stomach owing to defective expansion of the chest, then pulmonary gymnastics are very important. These gymnastics often are applied with considerable benefit in cases of dilatation of the stomach.

For nervous anorexia there is but one cure, namely, care and feeding by a judicious nurse, not of the family. I should say that the cure of such a case is not to be attempted at home, and that the patient should, under all circumstances, be removed to the care of strangers, were it not that I have succeeded more than once in accomplishing a cure at home; but in any case a trained nurse is indispensable. It is also indispensable that she have her own way undisturbed by the interference and opinions of the family and friends of the patient. If this cannot be secured, the physician will not desert his post, but he will disclaim all responsibility for the failure which may be his portion.

Of all these cases, the most difficult are those of neurotic vomiting. These patients are better removed from home, but the removal is not the almost certain cure that it is in nervous anorexia. Were it easy to prescribe the means of cure, there would be less of the difficulty which I have indicated. Food, however judiciously administered, too often returns, whether it be given in the smallest doses or given in rather large quantities once in twenty-four hours. The irritability of the stomach prevents the very means we desire to use. Massage with generous diet does not exhaust the patient. Lavage is of little use.

**Most Useful Measures.**—Drugs are rejected. On the whole, the best means are rectal feeding, with the use of sedatives to calm the stomach and reestablish a gradual

tolerance of food. The hypodermic use of morphine is to be avoided if possible. Moreover, in many of these cases, as the effects of the morphine pass off, it sets up some additional nausea.

I have found the most advantage from the use of bromides with the hydrocyanic acid, or, if this fails, with chloralamid. The latter combination, if administered in small and repeated quantities, often soothes the irritable coats, and food is retained. Calmine (sodium diethylbarbiturate), in the few cases in which I have tried it, acts very well indeed in allaying the nausea. With cerium oxalate I have not much experience; but if of any value, it must be used in much larger doses than those usually ordered, namely, 5 to 10 grains. Bismuth in the small doses of 10 to 15 grains is valueless, or nearly so. It has been used recently in doses of 1-4 to 1-2 ounce, mixed with a large quantity of water as an irrigation. But I have no experience with the plan. At all events, its perfect freedom from arsenic, lead and tellurium must be guaranteed.

**Arsenic.**—Of arsenic I can say more. Very small doses of this agent, in the form of the arsenous acid, or 1-4 or 1-2-drop doses of Fowler's solution in a teaspoonful of water, will often quiet the stomach in many cases of neurotic vomiting. It is best that these patients be not kept altogether in bed, although they should lie down after food, with perhaps a hot-water-bag to the epigastrium; and, if nausea and disposition to vomit comes on, the patient, in spite of efforts to the contrary, must be dissuaded from lifting his head. After trial of all such means without success, the patient may make a quick turn and recover. Perhaps, indeed, this is the issue of most of these aggravating cases of neurotic vomiting.

As regards diet, alcohol is a dangerous remedy to recommend to neurotic persons; fortunately they do not find much benefit from it. In moderate quantities, with meals only, it may be valuable during the worst phases of health, being omitted on complete convalescence. The effects of tea, coffee and tobacco on these patients should be carefully watched. They, or one or other of them, may be injurious. So also the odd reactions of some persons to certain foods,



such as eggs or shellfish, must not be forgotten.

GEORGE F. BUTLER

Chicago, Ill.

#### THE QUESTION OF FEEDING IN GASTRIC ULCER

Some years ago Messrs. Wm. Wood & Co. published a book by Hilton, entitled "Rest and Pain." It was of such value that it should never have been allowed to go out of print. Many of us who knew the truths it enunciated were aroused to a new sense of their importance by this book, and also learned of applications of this principle of which we had not dreamed.

In no internal disease is the principle of rest more essential to the success of the treatment than in gastric ulcer. Here the rest of that organ should be absolute. There should never be any feeding by the stomach which would induce the secretion of the acid gastric juice.

Few people really need anything like as much food as they consume, and while absorption from the rectum is not very satisfactory as a means of feeding, nevertheless it helps. Absorption from the vagina is far more active than from the rectum; and in these cases I have often succeeded in extending the time during which absolutely no food of any description is put into the stomach, by using suppositories of cotton, saturated with sanguiferrin, placed in the vagina and changed every eight hours.

The skin is capable of absorbing far more nourishment than is usually supposed, and while few of our patients are financially fitted to take baths of hot milk, they could be used in cases of emergency. Sponging with hot milk should be also a useful procedure. I have repeatedly satisfied myself of the great absorptive power of the skin, by the daily application of codliver oil or lanolin to parts where it was desirable to restore contour. In two weeks I have restored one inch of girth to a wasted arm by this procedure.

The subcutaneous administration of food is a possibility that has yet to be developed, but a decided amelioration of hunger as well as of thirst follows the administration of

decinormal saline solution hypodermically. We must not forget we have the means of satisfying thirst, and to a certain degree of hunger, by the nutritive baths. It is incredible how much fluid will be absorbed by the skin of a person whose blood has been reduced by abstinence.

A week or ten days of comparative starvation, that is, the absolute disuse of food by way of the stomach, and its application by the routes herein suggested, should usually see the healing of a gastric ulcer, especially if minute doses of the silver salts are given, besides enough morphine to restrain pain, should that occur.

When the use of food is resumed, one should begin with the least irritant substances, and of these I greatly prefer the raw white of egg, diffused through three parts its bulk of cold water. The next-best is clam broth. I do not know whether my old friend Burnham is still alive, and as devoted to theosophy as ever; I do know, however, that his clam broth has no superior, or at least, if it has, I have never been fortunate enough to find it. Many a time I have relieved distressing symptoms of irritation in the stomach by a cup of hot milk and water containing a tablespoonful of this broth. It seems to have specific powers in relieving gastric irritability and restoring to the stomach the capacity of digesting other foods.

It should not be forgotten that the pepsin compounds have a sedative effect upon an irritated stomach, which is entirely apart and distinct from their effects in promoting the digestion of foods. Very many times a dose of ingluvin, lactopeptin, or some other pepsin combination has relieved an irritable stomach when the digestive power of the dose was almost *nil*.

One final word as to this irritability of the stomach and vomiting: I have sometimes found total abstinence from food and drink for full twenty-four hours succeed in stopping vomiting when every other remedy had failed. However, this was before I realized the remarkable control exerted over this part of the pneumogastric tract by the hypodermic administration of atropine. Irritability of the stomach is controlled by atropine with mathematic precision.



Sometimes cases come to the physician where the patient has sudden and agonizing pain, felt in the stomach and well up under the sternum. This is the pain for which powerful carminatives or local stimulant combinations are employed—when camphor, chloroform, ether, ginger, in fact anything that is hot will generally give relief. As acidity commonly is present, a whole teaspoonful of sodium bicarbonate ordinarily is effective, but the quickest of all remedies, for this condition, which I have ever used is calcidin.

One of the lessons which has come to me after years of observation is the frequency with which gastric irritation is dependent upon fecal collections in the large bowel. Nowadays I never think of attempting to treat directly any gastric irritability whatsoever without first completely emptying the colon. It saves one many a mortification, and saves the patient many an hour of distress, if this important duty is first attended to as a routine measure.

W. F. WAUGH.

Chicago, Ill.

#### COMMENT ON THE LESSON

**Dysentery Once More.**—From North Yakima, Washington, we get an excellent paper in dysentery, from Dr. Richard Connell. Dr. Connell says:

"I have had good results from the liberal use of the effervescent saline laxative, the sulphocarbolates, tonic or stimulant remedies, the least possible quantity of opium to produce rest and an enema of cool water injected into the rectum following each movement, with colonic irrigation several times per day, plain hot water or medicated. Where it is not practical to use a tube for the colon I have the patient's hips elevated and use an ordinary rectal tube, allowing fluid to gravitate into the colon. I have secured such good results from this line of treatment that I rarely use the ipecac in large doses; however, I use emetin frequently and think it gives favorable results.

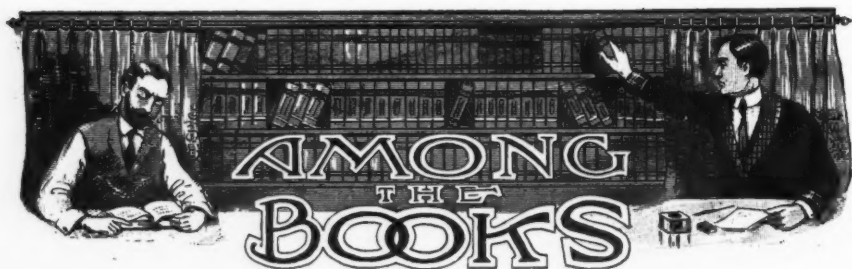
"Last fall I had a case, a baby nine months old, with symptoms of dysentery; pain over the abdomen, mucous stools, stained or mixed with blood, restlessness, and becoming rapidly

emaciated. I put it on the usual remedies, including the medicated irrigations, using the rectal tube after each stool. After a day's trial of this the mother became alarmed at the deep color and large quantity of the mucus (as they always do), and considering the age of the patient I felt rather dubious also. I sent word to the mother to have the child brought to the office, about four blocks from home. At this time the child was having numerous stools and was very restless. About 9 o'clock p. m. I placed a Geissler vacuum surface to the child's abdomen, turned on the mildest current possible from my high-frequency coil, and gently moved it over the colon five minutes. The child slept all night and did not have another movement for twenty-four hours, and the change in her face was very pleasing. She brought the child over for treatment several times, keeping up the other treatment. The child made a good recovery, the case lasting about a week or possibly a little longer. I believe the electricity in this case simply acted as a stimulant or tonic to the weakened tissues, including the solar plexus, enabling the leukocytes to maintain the battle to a successful finish, or increased the efficiency of the other treatment.

"During the winter I attended a nursing baby three weeks old with this disease (catarrhal colitis). There were bloody mucopurulent stools, tenesmus, restlessness and emaciation. I ordered enemata, medicated with argyrol, a rectal tube, elevating hips, three or four times daily. Perfect recovery. In this case I of course used the usual internal remedies. In this case I was puzzled to account for the source of infection. The drinking water was invariably boiled and no artificial food was administered."

#### EXAMINATION QUESTIONS

1. How is the rest cure given in gastric ulcer? Outline diet for a case of this kind.
2. Give three formulas for good rectal nutrient enemata.
3. What remedial agents are valuable in the treatment of gastric ulcer and how should they be used?
4. With what conditions is gastralgia likely to be confused? Make differential diagnosis.
5. What remedies are useful for alleviation of gastralgia? for its cure?
6. When should a case of gastric ulcer be referred for surgical operation?
7. Describe a case of ulcer of the stomach occurring in your own practice.



### SALEEBY'S "PARENTHOOD AND RACE CULTURE"

Parenthood and Race Culture. An Outline of Eugenics. By Caleb Williams Saleeby, M. D. Ch. B. New York: Moffat, Yard & Co.

This work is based on the trite semi-truisms which mar most of the platitudinous modern discussions of heredity. The fundamental idea is a nickel-in-the-slot initial velocity whereby the spermatozoon emerges as a completed being.

This homunculus-notion on which Sterne lays such stress in *Tristram Shandy* was exploded nearly three-quarters of a century ago by the embryologic discoveries of Von Baer. The fact that the ovum plays the chief part in embryogeny and that it is chiefly a product of maternal environment is totally ignored.

The influence of the struggle for existence between the developing organs, shown by Roux more than twenty-five years ago, receives no attention from the author. The evolution by atrophy, which DeMoor has demonstrated, and the resultant periods of stress, such as simial or senile periods of embryonic arrest, and which plays such a part in precocity and allied premature senilities, has not come within Dr. Saleeby's ken. The fact that this is the result of a struggle between the male and female types, of which the female is the higher inasmuch as it determines position in the scale of life, is seemingly unknown to the author.

Prenatal environment is largely ignored in the book. Heredity is erroneously regarded as a destiny which *must* be, not as Kiernan has said, as a prophecy of that which *may* be. This fatalistic notion marks the

book, since maternal environment before birth and child environment after birth lie behind most of the alleged effects of heredity.

Dr. Saleeby's motive is to be commended. He is evidently sincere and honest in his convictions. Books of this character with correct premises are valuable, for "there is," as Saleeby truly says, "no greater need for society today than to recognize that education must include, *must culminate in*, preparation for the supreme duty of parenthood.

. . . The boy and the girl, both, must learn that the racial instinct exists for the highest of ends—the continuance and ultimate elevation of the life of mankind. It is a sacred trust for the life of this world to come. We must teach our boys what it is to be really 'manly'—the fine word used by the tempter of youth when he means 'beastly.' To be manly is to be master of this instinct. And the 'higher education' of our girls, as we must teach our own selves, will be lower, not higher, if it does not serve and conserve the future mother, both by teaching her how to care for and guard her body, which is the temple of life to come, and how afterward to be a right educator of her children. The leading idea upon which one would insist is that the key to any of the right and useful methods of eugenic education is to be found in the conception of the racial instinct as existing for parenthood and to be guarded, revered, educated for that supreme end."

To the student of eugenics the volume will be found interesting, although, possibly, not always convincing. It is to be hoped that this book will stimulate study along these lines which unfortunately have been so neglected. It certainly ought, in some measure, help to fill up the immense void

of ignorance which prevails among the laity in regard to these matters, and no less—and more's the pity—among many in our profession.

Altogether, Dr. Saleeby is to be commended for his telling style, his plain yet elegant diction, and the enterprise he has displayed in quoting from innumerable writers on eugenics and allied subjects.

The volume can hardly fail to be a unique and interesting accession to the doctor's library.

#### **"INTERNATIONAL CLINICS"**

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles. Edited by W. T. Longcope, M. D. Philadelphia and London: J. B. Lippincott Company. Volume IV, Nineteenth Series, 1909. Volumes I, II, III, 1910. Price \$2.00 per volume.

Among the important articles in these volumes of the "International Clinics" we mention the following: Antimeningitis serum and the results of its employment, by Simon Flexner; diagnosis and treatment of pernicious anemia, by Walter L. Bierring; color photographs in relation to surgery, by C. B. Longenecker; indications for surgery of the prostate, in volume four, 19th series.

Volumes 1, 2 and 3 of the 20th series contain several articles on the serum diagnosis of syphilis, on pellagra, tuberculosis and other zymotic and infectious diseases, and their biologic and general treatment. The variety of the topics is almost as great as the number of titles, and it is hardly feasible to give even only a list of contents of these splendid books which afford us an idea of the progress of the medical sciences.

In volume 2 of the 20th series the lighter aspect of the physician's life has been considered in a paper by Roland G. Curtin of Philadelphia on book-plates of physicians, with remarks on the physician's leisure-hour hobbies.

The "International Clinics" realize their intention and purpose most excellently. They afford, in the form of special articles and of reviews, a bird's-eye view of what has been accomplished and of what is being done by those members of the profession who de-

vote themselves to research, as well as by the clinical workers. These volumes most surely deserve a place in every physician's library, and are well worth his careful study.

#### **STEWART'S "VISCERAL SURGERY"**

Visceral Surgery in Abstract. By A. Stewart. The Medical Abstract Publishing Co., Pittsburg, Pa. Price \$1.00.

This is a further volume of the very useful series of abstracts offered by the publishers. It covers briefly the principal points on abdominal surgery, operative gynecology, thoracic surgery, brain surgery, surgery of blood-vessels, of breast, proctology and hernia. We have repeatedly called the attention of our readers to this series which gives in brief outlines the principal information afforded by the text books on the subjects treated. In the present number the works of Rose and Carless, Cushing and Penrose have been freely consulted and abstracted.

#### **GOULD'S "BIOGRAPHIC CLINICS"**

Biographic Clinics. Volume VI. Essays concerning the influence of visual function, pathologic and physiologic, upon the health of patients. By George Gould, M. D. Philadelphia: P. Blakiston's Son & Co. 1909. Price \$1.00.

This sixth volume of "Biographic Clinics" is the last one that is to appear from the pen of the author, and is introduced by a valediction. The essays include "The case of Jonathan Swift," "Brief biographic clinics upon living patients," and nine others on the subject set forth in the title.

#### **BOYLE'S "PRACTICAL ANESTHETICS"**

Practical Anesthetics. By H. Edmund G. Boyle, M. R. C. S., L. R. C. P. London and New York: Oxford Medical Publications. Price \$1.50.

The author, who is anesthetist to St. Bartholomew's Hospital in London, is peculiarly fitted to offer advice and instruction on the very important subject of anesthesia. The little volume deals with the administration of nitrous oxide, ether, chloroform, ethyl chloride, and their various mixtures.

We have read the book with much interest and benefit. However, in the Bookworm's opinion, at least, a short mention of what the Germans call *daemmerschlaf* (or "twilight" of "drowsing" sleep), i. e., the hyoscine-morphine narcosis, would have been desirable.

This means of obtaining or introducing narcosis, both in surgery and obstetrics, has gained a considerable foothold, especially among American physicians, and an English monograph on the subject would be timely, the more so as the German monograph on anesthesia, by Von Steinbuechel, is several years old, and does not cover the full field.

The analgesia obtained by the lumbar injection of stovaine and other drugs is too difficult a procedure ever to become popular with the general practitioner, and is, therefore, properly omitted from consideration. We do miss, however, a reference to hypnosis, or suggestion, which J. M. Bramwell (New York, 1910) shows to have been a very important means of inducing surgical analgesia in times gone by and which is still of value in selected cases.

Aside from these strictures, the book is well written and will prove of undoubted usefulness.

#### A NEW FRENCH JOURNAL

We have received, from the publishers, the first number of *Biologica*, a "paramedical" journal, which is to be published in Paris under the editorial direction of such men as R. Blanchard, A. Calmette, A. Gautier, J. Grasset, and others, all being either members of the Académie de Médecine or of the Académie des Sciences. This publication, we are requested to point out, is to be a scientific review of the auxiliary, or as the prospectus calls them, the "paramedical," sciences rather than a practical or otherwise strictly medical journal. It will be devoted more to general than to human biology.

There is no doubt that the physician, however busy he may be, must keep up his studies on, not only the strictly medical progress, but also on that in the allied sciences. Especially is biology a highly

interesting and important field of investigation, the more so as the modern trend of treatment is in the direction of so-called biologic remedies, the action of which cannot be understood by the customary physiological and chemical methods of investigation and testing.

Those of our readers who have a sufficient command of the French language undoubtedly will find much of interest in this new publication, which is published by A. Poinat, 11 Rue Dupuytren, Paris at the subscription price of 8 francs (\$1.60) for countries outside of France.

#### PEABODY'S "RELIGIO-MEDICAL MASQUERADE"

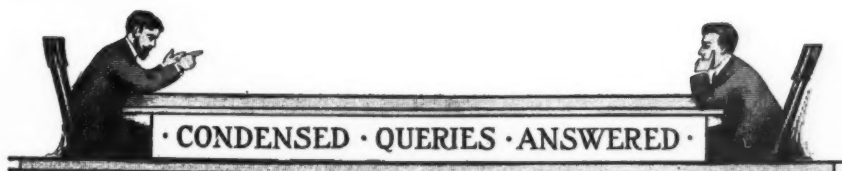
The Religio-Medical Masquerade. A complete exposure of Christian Science. By Frederick W. Peabody, LL. B., of the Boston bar. Boston: The Hancock Press. 1910. Price \$1.00.

The author, who has been engaged in a number of law-suits against Mrs. Eddy, denounces this founder of a religious sect and her cult in scathing language and unmeasured terms, and presents documentary and other evidence that her claims concerning her inspiration and her power of healing are false, that she has promulgated her method and "religion" for revenue only, and that her tenets are dangerous. He is unsparing in his condemnation of Mrs. Eddy and her tools and helpers.

The book is of interest to all thinking men and women who desire to inform themselves on the reasons for the strange fascination which this woman and her teachings exert on so many well-educated and mentally otherwise well-balanced persons.

#### A CORRECTION

Dr. J. H. McCurrie, whose book on "Malaria and Its Manifestations" we reviewed in CLINICAL MEDICINE for January (page 135), writes us to the effect that he has published the book himself, and that the price is \$1.50, and not \$1.00, as was stated. We gladly make this correction, and again take pleasure in commending it to our readers.



#### PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

### QUERIES

QUERY 5664.—“Infantile Genitalia.” G. A. P., Illinois, reports a case of unusual interest in a woman 29 years of age, recently married, who seems well developed in every way with the exception of the genital organs. The labiæ are quite small and the vagina will admit only the index-finger—and that with pain. The uterus also seems quite small. A vaginal dilator has been recommended, and now they ask whether she will become pregnant after its use.

The genitalia in this case may be of an infantile character, and a thorough examination (which is essential) may reveal abnormalities which would totally prevent the possibility of pregnancy. The age of the patient must be considered. Of course, the marital relation may, in time, bring about a vast change. Dilatation should be very gradual and no force whatever should be used or chronic vaginismus is quite likely to result.

One thing may be regarded as certain: Should she become pregnant, that is, the uterus will rapidly accommodate itself to the new condition. Are you quite positive that there is not a spasmodic condition of the sphincter vaginæ and a quite roomy canal behind it? What is the character of the woman, phlegmatic and frigid, or the reverse? Much depends upon this as well as upon her confidence and affection in and for her husband. If he is at all objectionable to her and she is of a nonerotic type the condition will be difficult to relieve.

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QUERY 5665.—“Nocturnal Emissions.” R. W. H., Canada, asks for suggestions in the following case. Ten days ago a man

of 37, single, apparently enjoying perfect health except for being moderately deaf, presented himself to be cured of nocturnal emissions. He is a hard-working laborer and fanatically religious. Erections and concomitant thoughts which he vainly tries to repress often keep him awake until long after midnight, this occurring almost nightly, and four times or oftener a week he finds his linen stained on rising. Very seldom he feels tired or physically depressed in the morning. His digestion, bowel movements, urine, and other functions seem absolutely normal. Syphilis and gonorrhea are excluded.

The man was placed on bromides with the result that he has no difficulty in going to sleep shortly after retiring, but finds that during the night the emissions have taken place as before. He is becoming worried and introspective and is in fear that masturbation, insanity, and other dire things will develop. Chromium sulphate and tepid baths have just now been added to this treatment.

Examine the urethra for hyperesthesia, the prostate for hypertrophy, the sphincter ani for constriction, fissure, etc., and the lower bowel for congested or ulcerated areas. Find out something about this man's prior sexual habits, and either examine his urine or have this done.

In the meantime pass a cold sterile steel sound every third day, gradually increasing the size of instrument. Saturate the patient with calcium sulphide and salicin: calcium sulphide, 1-3 grain, and salicin, 1-3 grain, given four times daily. In addition, monobromated camphor, 1 grain, with



cypripedin, 1-3 grain, may be given with a swallow or two of hot water half an hour before retiring. The bowels should be emptied before the patient goes to bed. Let him wash out the rectum with lukewarm normal saline solution.

For the psychic effect, speak very positively to your patient, assuring him that the condition will disappear provided he follows instructions and lives normally. If the man's peculiarities are not so pronounced as to render him an undesirable mate for a normal woman, a happy marriage presumably would have a beneficial influence on his condition. If he tires himself out physically before going to bed and takes a cold sponge the last thing he will find most of his troubles disappear. Of course, irritative food, if any, must be discovered and removed. We should not give bromides; delphinine will prove preferable if further sedation is needed.

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 QUERY 5666.—“Atypical Variola.” R. P. W., Arkansas, has observed several cases of smallpox in which, after the initial chill lasting twenty-four to forty-eight hours, the fever would entirely disappear and the patient get out of bed and go on about his business, the eruption appearing four, five, or even seven days later. This strikes the doctor as a little unusual, although recently he has had six or seven cases run this same peculiar course.

Is it absolutely certain that these patients suffered from variola? The writer of this has treated only three cases of smallpox in his life, but he directed the treatment of nine inmates of the pest house, receiving daily reports from the physician in attendance. His own experience and a careful study of the literature upon the subject would lead him to consider such clinical conditions as above depicted to be unheard of.

In cases of true variola, as a rule promptly upon the twelfth day after infection (although this period may be reduced by twenty-four or forty-eight hours) the initial chill appears, followed by high fever, headache, backache, and other symptoms. This condition subsides, usually, in about forty-eight hours (sixty hours is the longest period re-

ported), when the eruption makes its appearance. The subsidence of the fever is due to the eruption, while, as we know, the secondary fever which occurs during pustulation is extremely intense in severe cases. That a man could suffer an initial chill followed by a rise of temperature lasting from twenty-four to forty-eight hours and then be entirely free from hyperpyrexia and feel well enough to get up and go about his business is almost unbelievable, especially if the same individual in five to seven days presents the typical eruption.

“Mixed infection” may account for much, and reduced virulence can be accepted as a modifying factor, but old observers state that they have never seen complete deferrescence or more than forty-eight to sixty hours intervene between the initial chill (or convulsion) and the eruption.

No wonder you regard these cases as a “little unusual,” and we sincerely hope, Doctor, that you will write a detailed description of one or more cases. You do not give us any idea of the course pursued by the disease in these individuals after the eruption appeared. Was there pustulation, umbilication, desiccation, etc., and did pitting follow? How great was the systemic disturbance and was the odor marked? A man who has once smelled the odor present in a true smallpox case will never mistake any other disease for variola.

We have very many times called attention to the difference between the so-called Cuban itch and variola. If you are a subscriber look up your files, especially for 1907. Also, from Dr. James A. Egan, Secretary of the State Board of Health, Springfield, Ill., you can obtain a very interesting little booklet on smallpox, “Cuban itch” and similar affections.

Unfortunately the term “Cuban itch” is very loosely used and may designate scabies, varioloid, variola, or any one of several eruptive diseases. In many instances patients supposed to suffer from “Cuban itch” were found by the state inspectors to have true variola. Again, the authorities, regarding “Cuban itch” and smallpox as one, ordered the quarantining of some patients reported by the local physician to be suffering from “Cuban itch.”

Energetic protests followed a diagnosis of chicken-pox. Lately, moreover, the terms prairie-itch and Cuban itch have been used interchangeably.

QUERY 5667.—“Flexible Stem Pessaries in Version with Stenosis.” G. L., Georgia, desires us to recommend an intrauterine stem pessary for constant wear in cases of flexion and cervical stenosis, one that will serve as drainage tube as well; a flexible soft-rubber appliance preferred.

Any surgical-instrument house can supply stem pessaries of approved form, but we rather question the efficacy of the perforated tube. Such appliances are very apt to set up infection of the endometrium. Personally we would not think of applying such a pessary.

Further, in any marked case of flexion a *flexible* stem pessary would not prove supportive, while such an instrument would be passed with the greatest difficulty into a stenosed cervical canal. In a case of flexion with stenosis a rigid stem alone would prove useful, it seems. But, Doctor, why not cure the conditions?

QUERY 5668.—“Pruritus from Retention of Bile.” W. A. P., Maine, is treating a patient who presented herself with a previous history of gallstones; she is “all run down,” anemic, cachectic, and looks like a quarter-blood negress. Her main trouble is an intense itching from head to foot and she scratches until she scratches the skin off. The malady is worse about the face and eyes and she is continually “digging at herself.” Several years ago she had “rheumatism,” and after the doctor gave her up, she tells him, she took sulphur (pounds of it), and cured herself that way. A year and a half ago she weighed over 200 pounds and has lost weight continually, weighing now 138 pounds. At present she is gaining in strength, her bowels being kept clean with laxative salines and occasional doses of calomel and podophyllin. No albumin is found in the urine, the specific gravity varying from 1018 to 1022.

Have her bathe the entire body with carbolized epsom-salt solution (one ounce of epsom salt, one quart of water, 10 minims of

carbolic acid.) Give leptandrin, euonymin and iridin before dinner and supper, with chionanthin, 1 grain, after the three meals. Before breakfast, order a dose of sodium sulphate, and one hour after meals bilein and sodium sulphocarbolate. Examine carefully the hepatic area for lessened or increased dulness and see whether you can distinguish any abnormality of the gall-bladder.

Cannabin, strychnine valerianate and quinine hypophosphite may be given, during the early stages of treatment, to control the pruritus and in order to make a pronounced impression and compel the patient to realize that the treatment is effective, you might have her use the following at night: Salicylic acid, 45 grains; menthol, 15 grains; lanum, 2 ounces; benzoated lard, 1 ounce; olive oil, 2 drams. This should be washed off the exposed surfaces in the morning.

QUERY 5669.—“Removal of Superfluous Hair.” G. G., Missouri, has under observation an intelligent girl of twenty-one who since the age of puberty has been afflicted with a heavy chin-beard. Her personality is very feminine. The beard is an exact duplicate of that of an old lady whom the girl has known all her life, and prior to her birth this bearded woman was a frequent associate of her mother. Hence, many believe the girl's beard a birth mark. Her beard is soft and wavy and was never shaved until about a year ago, when it had attained a length of four or five inches.

We sincerely regret to say that no depilatory known to us is likely to prove satisfactory in this case. A good depilatory will remove hair but not prevent its growing again. Shaving, of course, makes the matter worse, and while the intelligent use of a depilatory might ultimately markedly reduce the luxuriance of the growth, we fear hair would constantly reappear.

We advise that your patient consult a competent electrotherapist, as the hair can positively be destroyed absolutely with the electric needle. It will take some time to do the work thoroughly, but once done, the victim will be rid of her unwelcome hirsute appendage forever. A competent operator will leave no scars.

QUERY 5670.—“Forced Flexion in Ankylosis.” O. E. A., Missouri, has a patient with a stiff arm and knee which have “improved somewhat under treatment,” but wishes to know whether it would be advisable to break up the adhesions?

We hesitate to advise forcible breaking up of the adhesions, in view of our limited knowledge of the local and systemic conditions subsisting. Much depends upon whether a false (fibrous) or true ankylosis exists. Occasionally a combination of extraarticular, intraarticular (ordinary fibrous) and bony ankylosis obtains. In intraarticular (fibrous) ankylosis movement is checked more abruptly than in an extraarticular one. In such cases the joint may be moved vigorously for two or three minutes, under chloroform. If swelling occurs, compresses wrung out of a hot epsom-salt solution should be applied, and also the parts well massaged with a weak iodine ointment, lanum being used as a base. Passive motion, friction and steam-baths should be tried, first together with the use of iodine ointment.

If you are sure that a fibrous ankylosis exists, take a short hold near the joint and try to rupture adhesions by flexion. The patient, of course, should be anesthetized. In osseous ankylosis do not interfere unless the patient decides to submit to resection—or whatever procedure may prove necessary when the joint is opened. If there is any infection of the joint, evidenced by redness and swelling or systemic disturbance, forced flexion is inadvisable. Chromium sulphate and calx iodata may be advantageously given here.

QUERY 5671.—“Apomorphine in Pertussis and Croup.” C. W. B., Virginia, desires to know if it would be safe in a case of whooping-cough or croup to give a hypodermic of apomorphine to a child of one or two years of age. If so, what would be a safe dose?

In croup, apomorphine should almost always be given hypodermically; invariably so if dyspnea is present and due to the presence of membrane or secretions which the child is unable to expel. In ordinary cases of croup, 1-50 grain may be given internally

every fifteen minutes to effect. We usually employ the granule containing 1-67 grain, or even two of them. To produce prompt emesis, a child of one year may receive 1-30 of a grain of apomorphine hypodermically. A child of two or over, 1-20 grain; a child over five, 1-10 grain. We should not hesitate to give the larger dose to the younger child.

In whooping-cough, apomorphine is not indicated, at least the pediatricists most familiar with alkaloidal practice have never suggested its administration. Emetin, however, is a useful expectorant and may be combined with helenin. During the spasmodic stage of pertussis, vomiting, as you know, quite often follows coughing spells. It is usually desirable to put a stop to the spasms, to sedate cough and prevent ejection of the stomach-contents. Calcium sulphide and emetin with monobromated camphor, to allay the spasmodic condition, make an excellent combination.

The time to “cure” whooping-cough, however, is before the “whoop” is heard. In the early catarrhal stage, three remedies are enough: atropine, calcium sulphide and calx iodata. The bowels should, of course, be kept thoroughly cleansed with small divided doses of calomel and podophyllin. The valerianate of atropine here is better than the sulphate. Hyoscyamine also is effective. If the spasms are unusually severe, hyoscyne and morphine with cactin in small doses may be given. Under ordinary circumstances, cicutine, lobelin, monobromated camphor and quinine hydroferrocyanide, alternated with atropine valerianate, will prove sufficient.

We suggest that you read the chapter on the treatment of pertussis in Candler's “Every-Day Diseases of Children.”

QUERY 5672.—“Impotence.” J. W. K., Texas, has under treatment an old man who has lost almost all power of erection. He is a very stout, healthy, robust man, of the venerable age of 76 years, in fine flesh (200 pounds), who has never in his life indulged in irregularities of any kind; he never even has taken a drink of any kind of spirituous liquors. “Now what,” our correspondent queries, “is the best thing for him to take?”

The "best thing" would be fresh air, a light diet and physical exercise. But, frankly, Doctor, don't you think that a man of "seventy-six" could manage to get along without aphrodisiacs? "The leaves decay, the leaves fall," might appropriately be quoted to this concupiscent individual, and his attention called to the fact that there are four seasons in the life of the individual—as for the world at large—spring, summer, autumn, winter. A man who is so close to the four-score mark has certainly entered the "winter" of his existence. In this case it is evidently "the winter of his discontent," and we fear even positive therapeutic methods would fail to make it glorious! This gentleman's mind should be fixed upon matters other than those connected with the reproduction of the human species. It might, perhaps, be possible to stir up the dying embers, but the resultant flame would, we fear, vengefully destroy the old gentleman himself. As you are doubtless aware, several dissatisfied octogenarians have been "snuffed out" with appalling suddenness while "trenching upon the prerogatives of youth!"

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 QUERY 5673.—"Rectal Fistula." M. C. S., South Dakota, asks us to outline treatment for a case of rectal fistula, internal and external. Patient a strong, healthy man of thirty-five years. Various treatments have been tried, but without much benefit.

The treatment of fistula in ano should, preferably, be surgical, but the actual cautery, caustics, or ligature may be used; the latter, however, are only to be thought of when the patient refuses operation and presents a single complete fistula. As a matter of fact, small fistulae having their internal opening between the two sphincter-muscles can easily be laid open under local anesthesia; but for the rectal variety surgical anesthesia must be induced. For full technic of operation see Albright's or any modern work on rectal surgery.

If a single sinus exists and operation is declined, the sphincter ani should be dilated, the fistula cleansed with hydrogen dioxide and an alkaline antiseptic solution, and the sinus swabbed with pure carbolic acid on a cotton-wrapped probe, neutralizing with alco-

hol in three minutes. Then insert a wick of gauze saturated with thuja or thymol iodide in oil solution. Bismuth paste (Beck's formula) is being used extensively, and excellent results are secured in many instances.

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 QUERY 5674.—"Nephrolithiasis." A. L. M., Ohio, is treating a man about forty-five years old, weighing 175, and in fair health generally, with the exception of occasional attacks of ureteral colic from the passing of a calculus. A year or so ago a physician began to treat him, aiming to prevent the stone formation in the kidneys, but the attacks seemed to come on more frequently. So the patient quit the medicine and has been taking some kind of patent nostrum, with, however, no better results. The doctor asks: "Would not more frequent attacks be the logical result of treatment—the concretions in the kidneys reduced in size escaping into the ureters and causing the trouble? Or would the calculi dissolve without escaping? The patient has had a good-sized stone in the bladder for some years, but this does not trouble him except when, in an effort to urinate, it falls down and shuts off the stream. He is not willing to have it removed so long as he feels as well as he does."

Before we can aid you intelligently, it is essential that we have a definite idea of the character of the calculus. Send a 4-ounce specimen of urine to the laboratory, taking care to secure any sediment which may be in the bottom of the vessel. Also send any concretions which may have been voided.

Renal calculi may be composed of uric acid, calcium oxalate or the phosphates of calcium, potassium and magnesium. Bear in mind that calcium carbonate with lithium and colchicine prevents the formation, but can hardly exert a solvent action upon uric-acid concretions. Such an alkaline diuretic should be given three times daily, with arbutin, 1-3 to 1 grain; lithium benzoate and barley water may be ordered almost *ad libitum* between meals. A saline draught should be taken the first thing on rising. For renal colic, give hyoscine and morphine, or glonoin, hyoscyamine and strychnine. Cannabin and atropine have been highly extolled, but hyoscine and morphine is a more effective combination.

A radiograph revealing the size and location of the calculus should be secured, and if operation is desirable, the sooner the patient submits the better. As both renal and vesical calculi exist, the case is probably distinctly surgical.

QUERY 5675.—“Pseudo Angina. Amenorrhea.” N. C. McL., Oklahoma, presents the following clinical data and requests assistance:

1. “Girl, 12 years old. Temperature, normal; pulse, 80; eats breakfast and dinner regularly, but misses her supper on account of pain located around heart. Commencing at 5 p. m. and 5 a. m., each attack lasts from ten to twenty minutes. Child suffers torture for two or three hours, then she gradually gets easy and goes to sleep; in ten or twenty minutes pain again wakes her up. She has been this way now for nine weeks and is no better. Pain during day is not severe. She is up and playing between attacks. Amyl nitrite, morphine, chloroform and antineuralgic tablets do not relieve her.

2. “Single lady, 25 years old (a school teacher, but not teaching for past year). Menstruated last nine months ago. General health is good, no cough, no fever, uterus normal no tumors or misplacement; can introduce probe or dilator without any trouble. ‘Emmenagog’ tablets do not produce results.”

Nine months is a long time for a normal and healthy woman to pass without signs of menstruation, and we fear some serious systemic disturbance exists. Are you sure there is no tuberculous tendency? What is the family history? Has there been any loss of weight or any progressive anemia? What is the rate and quality of pulse? What does a physical examination reveal? Make the Von Pirquet test.

In the meantime we suggest the exhibition of defibrinated bovine blood with Buckley's uterine tonic three times daily. The triple arsenates (preferably with nuclein) may well be given after meals. A nutritious diet, hot sitz bath, saline enemata, deep breathing and plenty of outdoor exercise will of course prove beneficial.

Do not forget that some women of pronounced mentality and nervous type cease to

menstruate under strain, and do not forget that these patients are the very ones who are apt to use opiates in some form. In such cases the menses may be suppressed.

We are especially interested in your case of “pseudoangina.” The conditions here are peculiar and we are unable to offer a positive diagnosis, though you probably have to deal with a functional cardiopathy.

The thing is to find out the exciting cause. Do we understand that the temperature is normal and the pulse 80 during the attack? Is there any cyanosis, coldness of the extremities, syncope, etc.? Has the child recently had any acute disease—pneumonia, scarlet-fever? Does examination reveal any sign of a pericarditis? How are the bowels and digestion, and what is the disposition of the patient? Note particularly the heart-sounds, quality of pulse and color of the mucosa. Think of rheumatic complications and uric acid diathesis.

We should be inclined to give this child, on general principles (and *pro tem.* only), cactin, gr. 1-67; aconitine, gr. 1-134; strychnine arsenate, gr. 1-67, morning, noon and night. Improve digestion and assimilation. Oversee diet and order salt sponge-baths followed by friction each night. Glonoin alone or combined with hyoscyamine and strychnine during the attack.

We should not use chloroform, while the usual “antineuralgic” compounds are rather too powerful for a patient of this type. A positive undersanding of conditions will alone enable us to outline treatment.

A colleague suggests that any pain resisting the powerful remedies names must be of a strangulative type, aroused, probably, when the food-mass reaches a certain point, a duodenal ulcer or impacted foreign body. The symptoms, he thinks, point to a digestive-canal lesion, and he suggests that the girl be put on an absolutely fluid diet, with colonic flushings, repeated for a week. Is there any jaundice, or blood in the stools? These suggestions may prove helpful. If we can exclude the usual causes of periodicity (malaria, rheumatism, syphilis) we come back to functional nerve disturbances as the probable factor. This child being at the age when menstrual life is beginning, we must also consider the pelvic organs.





*HERE is no more earnest student of the medico-economic and medico-sociologic problems, which are now of such vital interest to our profession, than Dr. W. J. Robinson of New York. He it was who initiated the modern movement for the reform of our medicinal therapy, by uncovering and denouncing the nostrum frauds; he has made a fearless, outspoken campaign for an honest and rational handling of the vital problems of the sex relation, and now he is beginning a new campaign, in which "Clinical Medicine" joins with all heart and energy, for the defense of our common profession against the assaults of quackery. There is no more trenchant writer, no more striking personality, than Dr. Robinson, and as publisher of magazines and books, as editor and writer, as well as medical practitioner, he is today one of the most interesting and most powerful figures in American medicine.*



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